

LAND ECONOMICS

a quarterly journal of

PLANNING, HOUSING & PUBLIC UTILITIES

CONTENTS

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| | | |
|---|----------------------------|-----|
| John Adams and Thomas Jefferson on the Nature of Landholding in America..... | RUDOLF FREUND..... | 107 |
| The Property Tax in Canada and the United States II.—Administration and Supplementation..... | HAROLD M. GROVES..... | 120 |
| Simulated Plant-Record Method of Life Analysis of Utility Plant for Depreciation Accounting Purposes..... | ALEX E. BAUHAN..... | 129 |
| Shopping Centers for Urban Redevelopment..... | ROBERT M. LILLIBRIDGE..... | 137 |
| The Employee Interest in the Public Utility Merger and Abandonment Cases..... | H. H. GOLDIN..... | 161 |

Reports and Comments

| | | |
|---|--|-----|
| The Development of Salter's Conception of Research..... | KENNETH H. PARSONS..... | 175 |
| The English Agricultural Act, 1947..... | V. WEBSTER JOHNSON..... | 178 |
| Needed: A Method of Western Mountain Land Valuation..... | ARTHUR ROTH, JR..... | 181 |
| A Note on Mortgage-Loan Interest..... | ROBERT S. SMITH..... | 185 |
| The United Nations and Changing Land Use in a Metropolis..... | ROSALIND TOUGH and RUTH G. WEINTRAUB..... | 186 |
| Public Utility Financing in the First Quarter of 1948..... | EDGAR F. BUNCE, JR..... | 191 |

Book Reviews

| | | |
|---|---------------------------|-----|
| A Critical Review of Research in Land Economics (Leonard A. Salter)..... | Henry J. Taylor..... | 196 |
| The Missouri Valley (Rufus Terral)..... | Henry C. Hart..... | 196 |
| Farm Management (John D. Black et al.)..... | David L. MacFarlane..... | 197 |
| Leases: Percentage, Short and Long Term (Stanley L. McMichael)..... | W. H. Ten Haken..... | 199 |
| Monetary Theory (George M. Halm)..... | Michael A. Heilperin..... | 200 |
| Full Employment in Your Community (W. E. Upjohn Inst. for Community Research)..... | W. E. Giese..... | 201 |
| The Trade of Nations (Michael A. Heilperin)..... | Howard Gary..... | 202 |
| Land Economics (R. R. Renne)..... | Raleigh Barlowe..... | 203 |
| Problems of African Development, Part I, Land and Labour (T. R. Batten)..... | Harald A. Pedersen..... | 204 |
| The American Farmer: His Problems and His Prospects (Lee Fryer)..... | Samuel Liss..... | 205 |
| Community Builders Handbook (Community Builders Council)..... | Chas. B. Bennett..... | 206 |
| The Economic Rivalry Between St. Louis & Chicago, 1850-1880 (Wyatt W. Belcher)..... | Lloyd Rodwin..... | 207 |

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John Adams and Thomas Jefferson on the Nature of Landholding in America

By RUDOLF FREUND*

AT the time when the problem of independence held the all-absorbing attention of the revolutionary generation, John Adams and Thomas Jefferson argued that the inherent right of the colonies to govern themselves had its close counterpart in the claim of every colonist to possess land in his own right. The arguments of the two men proceeded, in either case, from the political philosophy of the seventeenth and eighteenth centuries which proclaimed property, together with life and liberty, the foundations of the good society.

Since adolescence John Adams and Thomas Jefferson were quite familiar with the legal and political history of the English and colonial landholding sys-

tems.¹ When the colonial era drew to its close and the battle of ideas was joined in every field, Adams and Jefferson forged their special knowledge into political arguments to be used on occasions of particular emergency and importance. John Adams inserted his views on the property issue in the famous rejoinders of the Massachusetts Assembly to Governor Hutchinson early in 1773,² and reiterated his stand in the "Novanglus"—articles of the fateful winter and spring of 1775.³ Jefferson dealt with property rights in his forceful instructions for the Virginia delegates to the First Continental Congress, written in August 1774, and later known as "A Summary View

biography," *Writings*, ed. Ford, Vol. I, p. 4, and H. S. Randall, *The Life of Thomas Jefferson*, Vol. I, p. 30-31 (New York: Derby & Jackson, 1858).

¹ The House of Representatives of Massachusetts to the Governor, January 26, 1773, and March 2, 1773. *The Writings of Samuel Adams*, ed. H. A. Cushing, Vol. II, (New York: G. P. Putnam's Sons, 1904-1908). pp. 401-426, 431-454. (Cited hereafter as Samuel Adams, *Writings*). These two replies are attributed to Samuel Adams, but there seems little doubt that the passages of interest here reflected John Adams' views, even if they were not actually written by him. See: Samuel Adams, *Writings*, Vol. II, 401, note; John Adams, "Diary," *Works*, II, 310-313; also below.

² John Adams, *Works*, IV., pp. 11-177, especially pp. 121-151.

* North Carolina State College.

¹ John Adams, "Dissertation on the Feudal and Canon Law," *The Works of John Adams*, edited by Charles Francis Adams, Vol. III, 447 f. (Boston: Little, Brown & Co., 1850-56). (Cited hereafter as John Adams, *Works*). For John Adams' own comment, see "Diary," *Works*, Vol. II, 146-150, and Gilbert Chinard's eulogy in his *Honest John Adams* (Boston: Little, Brown & Co., 1933), p. 48-49. Thomas Jefferson, "Whether Christianity is Part of the Common Law," *The Writings of Thomas Jefferson*, edited by Paul Leicester Ford, Vol. I, p. 360 f. (New York: G. P. Putnam's Sons, 1892-99). (Cited hereafter as Jefferson's *Writings*, ed. Ford). Jefferson's own comments in his "Auto-

of the Rights of British America."⁴ This pamphlet established Jefferson's "reputation of a masterly pen," and led to the appointment of the young Virginian to the Committee which drafted the Declaration of Independence.⁵

I. *The King and the Colonies*

The central theme of the writings referred to was the refutation of Parliamentary rule over the Colonies. In form or substance, these discourses were petitions to the English King demanding his help against Parliament. John Adams and Thomas Jefferson took pains to explain why the colonies had a definite right for thus appealing to their sovereign. Together with James Wilson, the two men advanced the theory that England, Scotland, Ireland, and the American Colonies were independent nations joined together solely by the recognition of the same king as their common sovereign;⁶—the King, in turn, was obligated to restrain the members of his realm from interfering in the affairs of the others. Thus, the fight against a Parliament which represented the people of the British Isles, and nobody else, did in no way weaken the ties which bound the colonies to the English King and Empire. On the eve of Lexington, John Adams branded independence a slanderous term when interpreted as "a new plan of government over all America, unconnected with the Crown." And even after the first shots had been fired, Thomas Jefferson maintained that he would "rather be in dependence on Great Britain, properly limited, . . . than on

no nation." But he added, and John Adams certainly shared his feelings, that he would rather lend his hand "to sink the whole Island in the Ocean" than to submit to the rule of its Parliament.⁷

If, however, the avowed adherence to Crown and Empire was considered a political asset in the fight against Parliament, was it not poor strategy to raise the issue of property rights at this juncture? Parliament had no part in making or administering land laws on either side of the Ocean. Title to landed property in the Colonies emanated from the King as the ultimate owner of the soil, and permanent interests in land ("estates") were established according to the rules of statutory and common law. Why, then, did John Adams and Thomas Jefferson embark on a discussion of property rights which could not fail to challenge the King's right to grant land and collect rent from land thus granted?

Expediency may explain why John Adams and Thomas Jefferson treated the property issue without much fanfare in their pre-revolutionary writings. However, that issue had to be faced because basic principles were at stake. On what grounds, and within what limits, could a free colonial government acknowledge the English King as its sovereign? In particular, how could the founders of that government, the English settlers, recognize any right of the Crown which was established for, and anchored in, the king long before the first emigrant left England? Jefferson and Adams questioned whether the king's supreme domain over

⁴ Jefferson's *Writings*, ed. Ford, I, 427-447, esp. pp. 443-445; *Facsimile Reprint*, with an Introduction and a Biographical Note by Th. P. Abernethy, (New York: Scholars Facsimiles & Reprints, 1943), esp. p. 19-21. For Jefferson's own comments, see "Autobiography," *Writings*, ed. Ford, I, 12-14; "Letter to Edmund Pendleton," August 3, 1776, *Writings*, II, 78, Ford's introduction to the "Summary View," *Writings*, I, 421-426, and H. S. Randall, *Life*, *op. cit.* I, 89, 90.

⁵ John Adams, *Works*, II, p. 511, and H. S. Randall, *Life*, *op. cit.* I, p. 113.

⁶ R. G. Adams, *Political Ideas of the American Revolution* (New York: Facsimile Library, Inc., 1939), p. 97. Special reference is made to this book because of its excellent treatment of the Empire-theme in pre-revolutionary thought with which John Adams' and Thomas Jefferson's views on landholding are closely connected. See also, Ch. H. McIlwain, *The American Revolution: A Constitutional Interpretation* (New York: Macmillan, 1923).

⁷ John Adams, "Novanglus," *Works*, IV, 131. Thomas Jefferson to John Randolph, August 25, 1775, *Writings*, ed. Ford, I, 484.

land, even though it might apply to English soil, really extended across the Ocean, and whether the colonists did right when they took land "in fee" from the king and paid him rent.

Nor was this all. The unique development of England's legal institutions had long since transformed the superior title of the king to the land in his realm into a universal principle of landholding. Common and statutory laws alike prescribed that no British subject could possess land in his own right. All titles to and permanent interests in land had to be derivative ("in fee") in order to be legally valid. Tenure was thus proclaimed the sole basis and principle of all landholding wherever English law held sway. Again, Adams and Jefferson asked whether English precedents and laws did in fact have binding force in the colonies.

Obviously, any decision as to the character of the colonial landholding system had to proceed from an inquiry into the origin of colonial rule in America. In what manner did the settlers on American soil continue in the tutelage of the Crown? What English rights and laws did the emigrants carry across the Ocean? And what happened to the institution of tenure when transplanted into new soil?

John Adams and Thomas Jefferson sought the answers to these questions under the guidance of historical and legal writings which were deeply imbued with the spirit of the natural rights philosophy. But since the two men formulated their ideas quite independently of each other, they often reasoned along different lines, and even from different premises. The New Englander and the Virginian seemed engaged in a discussion between themselves, the remarks of the one often reading like comments on the assertions of the other.

II. Is Emigration a Natural Right?

A. *Jefferson.* John Adams and Thomas Jefferson held widely different opinions as to the basic character of emigration itself. The Virginian believed that the right to leave one's country was a natural and inherent right of all free men. The exercise of that right severed *uno actu* all ties with the motherland, its laws and institutions. In his "Summary View," Jefferson proclaimed that:

"Our ancestors . . ., before their emigration to America were the free inhabitants of the British Dominions in Europe, and possessed a right which nature has given to all men, of departing from the country, in which chance, not choice, has placed them, of going in quest of new habitations, and of there establishing new societies, under such laws and regulations as to them shall seem most likely to promote public happiness."

If such was the origin of the American Colonies, how did it happen that these colonies continued to recognize the English king as their sovereign, and to live under the laws of the country they left? For his answer, Jefferson did not search charters, nor did he quote legal precedents. It was his basic belief that the very facts of emigration and settlement rendered every commitment of the colonists the free choice of a free people. Jefferson continued:

"Settlement having been thus effected, the emigrants *thought proper* to adopt that system of law under which they had hitherto lived in the mother country, and to continue their union with her, by *submitting themselves* to the same common sovereign." (Italics supplied)

By that pronouncement Jefferson put the relationship of the colonies to the English Crown on this basis. Voluntary submission bound the colonies only so far as their own free will extended; they could not, and did not become parties to legal arrangements which the English King might have with other peoples of his realm. The bearer of the English

Crown, therefore, reigned in the Colonies, not in his capacity as King of England, or Scotland, or Ireland, but solely in that of "the chief officer of the people, appointed by the laws." Even in the external affairs of the colonies, the king had no self-willed power; he was but "the central link connecting the several parts of the empire, newly multiplied" by the inclusion of the Colonies in the English family of free nations.⁸

With regard to the "adoption" of the English Law, Jefferson's reasoning proceeded along more devious routes. The young Virginian undoubtedly shared the enthusiasm of his generation for the common law rights which were regarded as the main bulwark against encroachments on the "liberties" of the Colonies. On the other side, he was quite aware that the Common Law embodied principles, particularly with regard to property rights, which were incompatible with the basic tenets of the natural rights philosophy. As we shall see presently, Jefferson took great pains to resolve that dilemma in such a way that the basic goodness of the Common Law was preserved. In his later days, however, he drew a sharp dividing line between the rights of an Englishman and the rights of an English settler on American soil. "I

⁸ "Summary View," *Writings*, ed. Ford, I., pp. 429-431, 436, 439. One year later, in 1775, Jefferson expressed the same views even more forcefully when he drafted the "Declaration for Taking Up Arms." In his first draft, he wrote: "Our forefathers . . . left their native land to seek on these shores a residence for civil and religious freedom . . . and established their civil societies with various forms of government, but possessing all, what is inherent in all, the full and perfect powers of legislation. To continue their connection with the friends they had left, they arranged themselves by charters of compact under the same common king who thus became the link of union between the several parts of the empire." (*Jefferson Papers*, Library of Congress, Vol. II.) In the second draft, Jefferson left out the phrase italicized above, but inserted part of it after "the same common king," so that we read in Ford (*Writings*, I, pp. 464-465): ". . . they arranged themselves by charters of compact under the same common king, who thus completed their powers of full and perfect legislation and became the link of union between the several parts of the empire." The latter version is, of course, much weaker, and even contradictory in terms; how can something be "completed" which is already full and perfect?

deride with you," he wrote Judge Taylor in 1812, "the ordinary doctrine that we brought with us from England the Common Law rights. This narrow notion was a favorite in the first moment of rallying to our rights against Great Britain. But it [i.e., the notion] was that of men who *felt* their rights before they had *thought* of their explanation. The truth is that we brought with us the rights of men; of *expatriated* men."⁹

B. John Adams. Jefferson's radical views concerning the character of emigration were shared by few, if any, of his contemporaries.¹⁰ John Adams denied outright that emigration could be considered a natural right. He maintained that every inhabitant of the British Isles was bound to the English King by a personal tie of allegiance which lasted from the day of his birth to that of his death, no matter whether he stayed in England or left the motherland for new shores. This bond was so strong, Adams insisted, that an Englishman who wanted to emigrate had to obtain the king's permission to do so, and the learned New Englander quoted chapter and verse from English authorities in support of his opinion.¹¹

At the same time, John Adams con-

Jefferson himself explained later that this change in wording was due to his wish for a compromise with Dickinson's "half way house" position. Cf., "Autobiography," *Writings*, ed. Ford, I, p. 12, and "Notes on M. Soule's Book," *ibid.*, IV, p. 302.

⁹ *The Writings of Thomas Jefferson*, Memorial Edition, Vol. XIII, (Washington, D. C.: Jefferson Memorial Association, 1903-04), p. 165.

¹⁰ H. S. Randall, *Life*, I, p. 89, 90. Jefferson's "Autobiography," *Writings*, ed. Ford, I, 12, where Jefferson wrote: "In this doctrine however I had never been able to get anyone to agree with me but Mr. Wythe." Mr. R. G. Adams thinks that "this doctrine" referred to Jefferson's theory of the Empire which was similar to that of James Wilson, and others; Adams feels obliged, therefore, to say that Jefferson "apparently" never got anyone in Virginia to agree with him except George Wythe." (Italics mine.) *Political Ideas*, quoted above, p. 55. Actually, Jefferson had his doctrine of emigration in mind which was indeed quite unique. Cf., also John Adams' transcript of the discussion which took place on Sept. 6, 1774, in the "Committee for Stating Rights" of the First Continental Congress. John Adams, *Works*, II, p. 370.

¹¹ "Novanglus," *Works*, IV, pp. 121-124.

sidered the law of nature the ultimate source of the settlers' right to institute their own governments in America. But must not the continued allegiance to the Crown prevent the settlers from exercising that right? Adams thought not, and maintained that personal allegiance to the Crown was fully compatible with the fundamental rights to life, liberty, and even property. Adams proved his point by distilling from England's constitutional history a "legal doctrine of allegiance" which he considered of great importance.¹²

The initial step in Adams' deduction covered familiar ground. By virtue of a solemn compact, he said, the English King had obligated himself to protect his subjects in the exercise of their common law rights; in return, the English people, through their Parliament, had sworn allegiance to the Crown. But the compact between the Parliament and the King, continued Adams, bound solely the people and the Crown of England. From here, Adams' argument branched out in three directions. He maintained, first, that the compact converted the common law rights of the English people into "birthrights," because Parliament could secure the king's protection only for those represented in that body, that is, for the men and women born and residing in England. Secondly, the king's contractual obligation became an integral part of the "birthright" code itself which thus received its English character by the king's protection of the laws. Thirdly, the king was not bound to protect his subjects in the exercise of their "birthrights" anywhere else but on the soil of England, though his native-born subjects continued to be bound to him even after they left the motherland.

With regard to the status of the American settler, John Adams drew these conclusions from his doctrine. As English-born subjects, the emigrants, "while they lived, could not have taken arms against the king of England, without violating their allegiance. But their children would not have been natural subjects, and . . . consequently not bound to the king." Moreover, allegiance ceased to have contractual force, even for the first generation, because the king's compact did not bind him to protect an Englishman in the exercise of his birthrights on American soil. Strictly speaking, these rights, being contingent on the king's protection, could not be enjoyed in America at all. This did not mean, of course, that the emigrant became a lawless individual. As it were, his rights merely lost their English veneer, and re-emerged as the rights inherent in all men. "The individual settler," Adams said, "carried with him, as a man, all the rights of nature." Here was the rock-bottom fact of all colonial life. "Our ancestors," Adams concluded, "when they emigrated . . . had a clear right to have erected in this wilderness a British constitution, or a perfect democracy, or any other form of government they saw fit."

John Adams thus clothed the American settlers with the same absolute right of choosing their own form of government as did Thomas Jefferson. But Adams interpreted the actual choice of the settlers in much clearer terms, and accorded the colonial charters a vastly greater importance than did the Virginian. The charters, Adams maintained, were true contracts between the colonies and the English king; they established a new personal allegiance in return for the royal protection of the laws. However, these laws were not the old common laws of England, but those

¹² "Diary," *Works*, II., p. 165, where Governor Hutchinson was said to have cut "a meagre figure" in the debate with the Massachusetts Assembly because he "wholly misunderstood the legal doctrine of allegiance."

of nature. Adams knew, of course, that the charters did not say so, but contained nothing more than a guarantee of "English liberties." But this term was only a figure of speech, Adams implied; in truth, the charters referred to English liberties as to "certain rights of nature which cleaved to our ancestors when they crossed the Atlantic, and would have inhered in them . . . even although they had taken no patent or charter from the king at all." In consequence, "we New Englandmen derive our laws . . . not from parliament, not from common law, but from the law of nature, and the contract made with the king in our charters."¹³

III. The Basis of Tenure

A. *John Adams. (continued)* John Adams' definition of allegiance savoured strongly of the feudal concept of tenure. "Allegiance to a sovereign lord," he wrote, "is nothing more than fealty to a subordinate lord, and in neither case has any relation to or connection with laws or parliament, lord, or commons. There was a reciprocal confidence between the lord and vassal. The lord was to protect the vassal in the enjoyment of his land. The vassal was to be faithful to his lord, and defend him against his enemies."¹⁴

Accepting the protection of the lord implied, of course, that the vassal recognized the lord's superior title to the land which the vassal enjoyed. From here it seemed but a short step to conclude that the English king, as the sovereign lord, was indeed vested with the superior domain over all the land which his sub-

jects tilled. John Adams, however, refused to take that step. He might admit that in England land was being held "in fee" from the king; but he denied that the same principle could apply to America, the language of the land patents notwithstanding.

Again, John Adams went back to the origin of settlement in America. He maintained that the king's claim to superior domain in new countries differed in character and validity according to whether that claim was based on actual conquest or proceeded from discovery and peaceful occupation.¹⁵ Only military conquest, Adams said, gave the prince the undisputable and complete dominion over life and property of a subjugated people. If he parcelled out the land to his friends, who granted lesser parts of it to others, all land would eventually be held "in fee," and mediately or immediately from the king. Such was the case in England following the Conquest of 1066; and if the English king, said Adams, "had sent an army here to conquer King Massachusetts, and it had succeeded, he would have been the sovereign lord of the land here upon these principles." But America, exclaimed Adams, "is not a conquered, but a discovered country." What rights, then, if any, would accrue to the king through discovery?

Discovery could indeed confer supreme dominion upon a prince, if a country was inhabited by heathens and not claimed by another Christian prince. That doctrine, admitted Adams, might have applied to America, save for this

¹³ "Novanglus," *Works*, IV., pp. 121-124. John Adams' identification of the birthrights of Englishmen with the natural rights of men bears out Roscoe Pound's general observation that "the common-law limitation upon royal authority became natural limitations upon all authority; the common-law rights of Englishmen became the natural rights of men." R. Pound, *The Spirit of the Common Law* (Boston: Marshall Jones Co., 1921), p. 254-256.

¹⁴ "Novanglus," *Works*, IV., p. 145.

¹⁵ This distinction was quite familiar to judicial writers of the eighteenth century. Blackstone, *e.g.*, said that "plantations or colonies, in distant countries, are either such where the lands are claimed by right of occupancy only by finding them desert and uncultivated, and peopling them from the mother country; or where, when already cultivated, they have been either gained by conquest, or ceded to us by treaties." *Commentaries*, 15th edition (London: T. Cadell & W. Davies, 1809), Vol. I., p. 106, 107.

decisive fact; neither the king nor his emissaries discovered America and settled on its shores; solely the king's subjects did so, and they acted of their own accord. Obviously, then, the king could not convey rights to American land which he never acquired in his own person, or for the Crown. By the same token the settlers could not have derived their titles to land from the king either.

On the other side, John Adams would not admit that the colonists had taken their land by force. "In the sight of God and man," they did not dare to violate the rights of the native Indians to their properties "which God had originally given them." Prompted by their keen sense for reason and equity, Adams exclaimed, "our ancestors . . . honestly purchased their lands from the natives," and paid for their possessions "dearly, very dearly in the labor, blood, and treasure" which they expended in subduing the soil to cultivation. All that gave the settlers the most perfect title to their land, which they might have acquired, as Adams put it, "to hold allodially," that is, to the exclusion of any superior claim of the king.¹⁶

And yet the colonists did recognize that very claim by taking their lands in grant from the king, as the wording of every patent showed. What, then, did induce them to do so? Adams' answer

was, first, that colonial land grants were offered under the most lenient terms and, second, that allodial landholding was incompatible with the institutions of a monarchy. In a remarkable passage, Adams had this to say about the early settlers:

"To have holden their land allodially, or for every man to have been the sovereign lord and proprietor of the ground he occupied, would have constituted a government too nearly like a commonwealth. They have contented, therefore, to hold their lands of their king, as their sovereign lord; and to him they were willing to render homage, but to no mean or subordinate lords; nor were they willing to submit to any of the baser services. In all this they were so strenuous, that they have even transmitted to their posterity a very general contempt and detestation of holdings by quitrents, as they have also a hereditary ardor for liberty and thirst of knowledge."¹⁷

B. Jefferson. Compared to John Adams' genteel reconciliation of the fundamentally allodial nature of landholding with the settlers' allegiance to the king, Jefferson's approach to the same problems was almost brutal in its simplicity and brevity. He did not bother to investigate into the rights, fictitious or real, accruing from discovery and he made equally short shrift with the king's right of conquest. He declared boldly: "America was not conquered by William the Norman, nor its lands

maining in the lord. This allodial property no subject in England has; it being a received, and now undeniable principle in the law, that all the lands in England are holden mediately or immediately of the king. The king therefore only hath *absolutum et directum dominium*: but all subjects' lands are in the nature of *feodum* or *fee* . . . A subject therefore hath only the usufruct, and not the absolute property of the soil; or, as Sir Edward Coke expresses it, he hath *dominium utile*, but not *dominium directum*." Blackstone, *Commentaries*, op. cit., Vol. II, pp. 104, 105.

¹⁷ "Dissertation," John Adams, *Works*, III, 455. Dalrymple, whom Adams read at that time, (Cf., "Diary," *Works*, II, 147) even spoke of "the allodial right of election," meaning the absence of property qualifications for electors. John Dalrymple, *An Essay Towards a General History of Feudal Property in Great Britain*, Fourth Edition (London: A. Millar, 1759), p. 276.

¹⁸ "Summary View," *Writings*, ed. Ford, I., 444.

¹⁶ "Dissertation," John Adams, *Works*, III, p. 450; "Replies to the Governor," *Writings of Samuel Adams*, II., 404, 405; "Novanglus," John Adams, *Works*, IV., 124-125, 170, 176, 177. The pivotal term "allodial" was used by John Adams, as well as by Thomas Jefferson for signifying the opposite to land held "in fee" of a superior lord. "Allodium," said the much-read Blackstone, "the writers on this subject define to be every man's own land, which he possesseth merely in his own right, without owing rent or service to any superior. This is property in its highest degree; and the owner thereof hath *absolutum* and *directum dominium*. . . . But *feodum* or *fee*, is that which is held of some superior, on condition of rendering him service; in which superior the ultimate property of the land resides. And therefore Sir Henry Spelman defines a feud or fee to be the right which the vassal or tenant hath in lands, to use the same, and take the profits thereof to him and his heirs, rendering to the lord his due services; the mere allodial property of the soil always re-

surrendered to him, or any of his successors," and concluded in the same breath: "Possessions there are undoubtedly of the allodial nature."¹⁸

Equally brief and to the point was Jefferson's deduction of the settlers' rights to the lands they possessed. Adams based these rights, we remember, on the equitable purchase of Indian land and the subsequent expense of labor, treasure and blood in its cultivation and defense. Jefferson harbored far more sanguine feelings; he dressed the colonists themselves in the garb of conquerors, investing every one of them with the "right of conquest" to the land he acquired. "America was conquered," he said, "and her settlements made . . . at the expense of individuals. . . . Their own blood was spilt in acquiring lands for their settlements, their own fortunes expended in making that settlement effectual; for themselves they fought, for themselves they conquered, and for themselves alone they have right to hold."¹⁹

Assuredly, there was no room here for loyalty to a stay-at-home king. With a single stroke Jefferson wiped out the whole doctrine of tenure by bestowing upon every individual settler the right of absolute and direct dominion over his land. Two years after the "Summary View" was written Jefferson commented on his "long-held opinion that our lands were allodial possessions" in these

emphatic terms; he denied that there was any valid distinction between *allodium* and *feodum*, and called "the separation of the property from the perpetual use of land a mere fiction."²⁰

IV. The Fiction of Tenure

A. *Jefferson. (Continued)* If tenure was a mere fiction, how did it come to pass that all lands in America were held in grant from the king? Were these grants spurious? Jefferson thought not; the grants were but instruments employed for making the general rule of tenure stick. But how, and when, Jefferson asked, did tenure lose the connotation of a personal lord-tenant relationship and was changed into a general principle? For his answer Jefferson had to delve into the dim past of English history because tenure was established as the universal basis of landholding long before the first settlers crossed the Ocean.

In his search Jefferson relied heavily on well-known English and Scottish writers of the eighteenth century who were deeply imbued with the spirit of the political philosophy of their time.²¹ These authors, and Jefferson with them, glorified the Anglo-Saxon phase of England's history as the one period when the natural rights of men were fully protected and exercised. "Our ancestors," wrote Jefferson, "held their lands, as they did their personal property, in

¹⁸ "Summary View," *Writings*, ed. Ford, I., 430.

²⁰ Letter to Edmund Pendleton, Aug. 13, 1776. *Writings*, ed. Ford, II., 78-79. The first paragraph of this long letter reads: "The opinion that our lands were allodial possessions is one which I have very long held, and had in my eye during a pretty considerable part of my law reading which I found always strengthened it. It was mentioned in a very hasty production, intended to have been put under a course of severe correction, but produced afterwards to the world in a way with which you are acquainted. This opinion I have thought and still think to prove if ever I should have time to look into books again." Jefferson wrote this letter in reply to one of Pendleton's, dated Aug. 3, 1776, and Pendleton replied to Jefferson's letter again on Aug. 26. Pendleton's letters are in the Library of Congress collection of Jefferson's papers, Vol. II, and have not been published. This is to be regretted since this correspondence throws much light on

Jefferson's concept of "allodial" landholding, and the practical consequences he drew from it. Cf., R. L. Hilldrup, *The Life and Times of Edmund Pendleton* (Chapel Hill: University of North Carolina Press, 1939), pp. 189-191.

²¹ *The Commonplace Book of Thomas Jefferson* (edited, with an introduction and notes, by G. Chinard, Johns Hopkins Press: Baltimore, 1926) contained long excerpts from Lord Kame's *Law Tracts*, Dalrymple's *Essays Toward a General History of Feudal Property in England*, Blackstone's *Commentaries*, and Robertson's *History of Charles V.* See nos. 559, 569-571, 740, 757-759; also Chinard's comments, Introduction, pp. 16-21, 29-31. In the "Summary View," Jefferson referred to these sources when he said: "The introduction of the feudal tenures into the kingdom of England, though ancient, is well enough understood to set this matter in a proper light." *Writings*, ed. Ford, I., 443. For John Adams' use of the same sources, see below.

absolute domain, disencumbered with any superior." That happy state of affairs was undermined and eventually destroyed by the Norman invaders, and the dark history of continued oppression began.

The first step was taken by William the Conqueror himself. He ousted his Saxon enemies from their landed possessions and parcelled these out among his followers under the condition that his vassals render him personal services, mostly military in character. The king reserved for himself the ultimate ownership in the lands thus granted, thereby creating "estates in fee" which ran true to feudal law. So far, Jefferson admitted, the king acted within the right of conquest which conferred upon the victor the full domain over the life and property of those who had taken arms against him, or surrendered to him voluntarily; nor did he question the right of the king to grant land, thus acquired, "in fee" to his followers.

However, the Norman king, and especially his successors, went much farther. By express laws, "enacted to render uniform the system of military defense," even those Saxon holdings which were never forfeited or surrendered to the king "were made liable to the same military duties, *as if* they had been feuds; and the Norman lawyers soon found means to saddle them with all the other feudal burdens. . . . A general principle indeed was introduced, that all lands in England were held either mediately or immediately of the crown."

Here was the turning point of Jefferson's historical argument. He did not deny that the king might grant land which he had acquired by conquest or surrender. But a fraud was committed when laws were passed which extended that personal privilege of the king over the properties of each and every one of

his subjects. The humble tillers of the English soil had not forfeited life and property to the king. For them, the unwritten laws of their forefathers ("lex non scripta") remained fully valid, and there was not the slightest doubt in Jefferson's mind that the establishment of the king's superior domain violated one of the most sacred tenets of the old Anglo-Saxon law.

But the wily jurists of the Norman court, Jefferson explained, soon contrived to make the English people forget their proud heritage. The acquisition and transfer of land was made contingent on fealty and homage, and on this basis the king's overlordship became generally accepted. New statutes and codifications inserted into the old common law rules the wholly foreign idea that all rights to land, and interests in it, originated in the king. This falsification of the common law, Jefferson maintained, sounded the death-knell for the ancient right of every Englishman to hold land in direct and absolute domain.

To the believer in the original rights of men, the historical development of the English land laws proved but this one point; tenure never had any place in the basic laws of the English people. The superior claim of the king to land was a feudal concept which applied only to land forfeited to the conqueror-king, but never to the landed properties of all his subjects. "The Saxon laws of possession," concluded Jefferson, "still form the basis, or groundwork of the Common Law," and these ancient laws never ceased to prevail, "wheresoever the *exceptions*" to these laws, that is, the granting of forfeited lands, "have *not* taken place."²²

²² "Summary View," *Writings*, ed. Ford, I, pp. 443-444. Italics and bracketed words supplied. The two crucial sentences in Jefferson's involved common-law argument read: "Feudal holdings were but the exceptions out of the Saxon laws of possession, under which all lands were held in absolute right. These, therefore still form the basis, or groundwork, of the common law wheresoever the exceptions

(Footnote 22 continues on page 116)

Obviously, the land grants to colonial companies, proprietors, and settlers did not fall within the category of genuine feuds, because the English king never conquered as much as one square foot of American soil. Possessions in America, are, therefore, "of the allodial nature," Jefferson said, and the American colonists hold their lands in the same manner as did their Anglo-Saxon forefathers before the Conquest, that is, "in absolute domain, disencumbered with any superior."

Of course, the American settlers of the seventeenth and eighteenth centuries were as little aware of their ancient rights as were their English brothers. Said Jefferson:

"Our ancestors were laborers, not lawyers. The fictitious principle that all lands belong originally to the king they were early persuaded to believe real, and accordingly took grants of their own lands from the Crown. For a long time this contradiction in the nature of colonial landholding went unnoticed, mainly because land was granted for small sums and on reasonable terms. But a recent change in this respect makes it imperative for us to lay this matter before his Majesty, and to declare that he has no right to grant lands of himself."²³

This pronouncement struck at the root of the colonial tenure system, and opened the way for the restoration of full property rights to the American farmer.

Almost two decades, however, had to pass by before this final goal was achieved. True enough, the English king lost his supreme domain over colonial lands when the colonies absolved their

allegiance to the English Crown. But the common law continued to hold sway in the new and independent states of America; property rights, therefore, were still treated under the assumption of the tenure principle. Moreover, there was little chance that the several states would repeal the English law codes *in toto*. Virginia in particular, to whom most states looked for guidance in these matters, seemed in no mood to change its earlier, and formal decision as to the validity of the common law in its territory.²⁴

Thomas Jefferson, however, could not rest content until the fiction of tenure was totally destroyed. After his return from Philadelphia in 1776 he devoted two years of incessant labor to the revision of the Common Law Code of Virginia.²⁵ Among his most celebrated achievements were the abolition of entail, and the re-framing of the laws of descent which eliminated primogeniture. These eradication of feudal impurities from the common law put indeed an end to the "separation of property from the perpetual use of land," and went far towards re-establishing the old Saxon system of "allodial" property rights which Jefferson praised as "the wisest and most perfect yet devised by the wit of man."²⁶

B. John Adams. John Adams shared Jefferson's enthusiasm for the Anglo-Saxon laws, and condemned the evils of feudalism just as vigorously. In contrast

(Footnote 22 continued from page 115)
have not taken place." Ford's editions omitted "not," thereby distorting Jefferson's meaning. For the correct version, see *Facsimile Print of the "Summary View,"* ed. Th. P. Abernethy (New York: Scholars' Facsimiles & Reprints, 1943), p. 20; *The Complete Jefferson*, ed. by S. K. Padover, (New York: Harcourt, Brace & Co., 1943), p. 17.

²³ "Summary View," *Writings*, ed. Ford, I., p. 444.

²⁴ *The Statutes at Large*, ed. W. W. Hening, Vol. I, 363-64; Vol. II, 43; Vol. XIII, 23, 259. (Richmond: Printed for the Editor, 1810-1823); see also: P. S. Reinsch, *English Common Law in the Early American Colonies. Select Essays on English-American History*, ed. by a Committee of the Association of American Law Schools (Boston: Little, Brown

& Co., 1907), Vol. I., 367-416, esp. p. 405 f.; R. B. Morris, *Studies in the History of American Law*, (New York: Columbia University Press, 1930), esp. pp. 69-126; Ch. M. Wiltse, *The Jeffersonian Tradition in American Democracy*, (Chapel Hill: University of North Carolina Press, 1935), p. 57, with special reference to the "Summary View."

²⁵ "Autobiography," *Writings*, ed. Ford, I., 57-62, with this opening remark: "When I left Congress, it was in the persuasion that our whole code must be reviewed. . . . Early therefore in the session (of the Virginia Assembly) of 76, to which I returned, I moved and presented a bill for the revision of the laws."

²⁶ Letter to Edmund Pendleton, August 13, 1776. *Writings*, ed. Ford, II, p. 79-80.

to the Virginian, however, Adams gave full credit to the beneficial changes which the ascendancy of Parliament over tyrannical kings had wrought in the land laws of England. The New Englander thus concurred in the views of Blackstone, Dalrymple, Lord Kames and others, that England now enjoyed a happy balance between liberty and prerogative; and that her tenure system had become that of a free people who were no longer subject to base services and loathsome restrictions in the use and disposal of their properties.²⁷

When, therefore, Governor Hutchinson reminded the Massachusetts Assembly that all colonial lands were held in grant from the king, Adams asked mockingly whether His Excellency really intended "to introduce the feudal system in its perfection" into the colonies. The enlightened official of the Crown must know, he said, that "by the great struggle for liberty, . . . from the days of King John, to the last happy revolution, the [English] constitution has been changing for the better; and upon the more rational principles, that all men, by nature, are in a state of equality in respect to jurisdiction and dominion, power in England has been more equally divided."²⁸

²⁷ See especially Blackstone's last chapter of the *Commentaries*, *op. cit.* Vol. IV, p. 419 ff. Also James Otis' earlier statement: "Subjects they [the colonists] are; their lands they hold of the crown, by common socage, the freest feudal tenure, by which any hold their land in England, or anywhere else." James Otis, "The Rights of the British Colonies Asserted and Proved," [1764], *Some Political Writings of James Otis*, ed. C. F. Mullett (The University of Missouri Studies), Vol. IV, No. 3, July 1929, p. 81-82.

²⁸ The House of Representatives of Massachusetts to the Governor, March 2, 1773. *The Writings of Samuel Adams*, Vol. II, 432-33; John Adams, "A Dissertation on the Canon and Feudal Law," *Works*, III, 450-51, 454-55. The following comparison between respective passages in the earlier "Dissertation," and the later "Reply," seems to remove any doubt as to John Adams' authorship of the "Reply," and the sources used for both. (1) In the "Dissertation," John Adams, *Works*, III, p. 450, appeared this cryptic footnote: "Rob. Hist. Ch. V, pp. 178-9, etc.," which referred to an Appendix in William Robertson's *History of Charles V*; that appendix was itself an annotation to the following sentence in Robertson's book (p. 12 of the early editions): "But though the feudal policy seems to be admirably calculated

The same principles also govern the set-up and the laws of the Colonies, Adams insisted. He could not admit, of course, that the English Parliament and the English Laws could uphold these principles anywhere else except in England, but neither was there any need for Parliament to concern itself with the "English" rights of the settlers. Having left England because they hated tyranny even more than their brothers, the colonists did not want to lose the fruits already secured in the fight against tyranny. For this reason they "wisely took care to enter into compact" with the king by accepting their charters as co-equal partners. In express terms, these charters stipulated that "power here should also be equally divided, agreeable to the original fundamental principles of the English constitution, declared in Magna Charta, and other laws and statutes of England, made to confirm them."²⁹

The instrument of compact, so vital for establishing the political rights of the colonists, likewise moulded the special pattern of colonial landholding. In America, John Adams maintained, ten-

against the assaults of any foreign power, its provisions for the interior order and tranquility of society were extremely defective." In the "Reply," we read: ". . . the feudal system . . ., to use the words of one of our greatest historians, was . . . 'calculated solely for the defense against the assaults of any foreign power; but in its provisions for the interior order and tranquility of society, extremely defective' . . ." (*The Writings of Samuel Adams*, Vol. II), p. 432. (2) In the "Dissertation," (*Works*), pp. 454-55, Adams wrote: "Lord Kames, a Scottish writer of great reputation . . . speaking of feudal laws, says, 'A constitution so contradictory to all principles which govern mankind can never be brought about, . . . but by foreign conquest or native usurpations.' Rousseau, speaking of the same system, calls it 'that most iniquitous and absurd form of government by which human nature was so shamefully degraded.' . . ." In the "Reply," we read: "A constitution so contradictory to all the principles which govern mankind, could never be brought about but by foreign conquest or native usurpation. And a very celebrated writer calls it 'that most iniquitous and absurd form of government by which human nature was so shamefully degraded' . . ." (*The Writings of Samuel Adams*, Vol. II, 433).

²⁹ "Dissertation," *Works*, III, p. 451; The House of Representatives of Massachusetts to the Governor, *The Writings of Samuel Adams*, Vol. II, p. 435.

ure was re-established by new and separate contracts between the self-governing settlers (who could have held their lands allodially "if they would") and their Sovereign, and not on the basis of transplanted laws, or English precedents pertaining to the king's rights there. In other words, tenure in the colonies had just as little, and just as much, in common with tenure in England as tenure there had in common with tenure in Scotland or Ireland; in all these cases the king was indeed the overlord, but in each case his position was defined by separate laws or distinct contractual stipulations. The king simply happened to unite capacities of different character and definitions in his one natural person.

It was from these premises that Adams re-interpreted the famous clause in Colonial charters that "land [in the colonies] was to be held in socage, like the manor of East Greenwich." Did this not imply, asked Adams, that English laws also ruled in the Colonies, East Greenwich being a Royal manor in Kent? "But this was compact," he exclaimed, having in mind any Colonial charter or patent containing the socage clause. Colonial lands, we have to interpret Adams' outcry, were not held under, but only "like" the manor of Greenwich. The tenure of this Royal Demesne was referred to in the charters as an illustration of contractual stipulations with the person of the king and not as an assertion of the king's right under English laws which could not, and did not apply to the Colonies. Adams clinched his argument by saying that "it might have been as well to hold [in the colonies], as they held in Glasgow or Dublin," meaning that the bearer of three Crowns could have chosen any one of "his" tenures as an example for the

character and the incidents of colonial landholding.

These distinctions, so hard for the modern mind to grasp, led Adams to assert again the basically personal nature of all tenure: "lands here, or in England," he said, "are held of the royal person, the natural person of the king. Holding lands, etc., of the crown . . . can have no other sensible meaning than this, that we hold lands of that person, whoever he is, who wears the crown." But holding of the same person might mean very different things according to whether grants were in the nature of contracts, or merely betokened, over the king's signature, a general principle of the laws, as in England.³⁰

V. Summary and Outlook

The political situation on the eve of the American Revolution demanded that specific issues, such as the legislative power of Parliament and the King's superior domain over colonial lands, were singled out for immediate refutation. John Adams and Thomas Jefferson solved the latter task by probing into the historical origin of the Colonies and their system of landholding by grants. Adams insisted that tenure in the Colonies was established by virtue of contracts between independent agents. Jefferson found that tenure was a feudal concept alien to the Anglo-Saxon spirit of the Common Law. Both men believed that free Englishmen, on both sides of the Ocean, were endowed with the right to possess land in direct and absolute domain. Adams, however, would tolerate the claim of the English crown as a corollary of the colonists' personal loyalty to the king, while Jefferson denied that the king ever

³⁰ "Novanglus," John Adams, *Works*, IV., 126-27, 176-77. John Adams' interpretation of the socage clause is now supported by the best authorities in the field. See especially, Charles M. Andrews, *The Colonial Period of American History*.

Vol. I, p. 87-89, esp. footnote. (New Haven: Yale University Press, 1935), and Viola F. Barnes, *Land Tenure in English Colonial Charters of the Seventeenth Century*, in *Essays in Colonial History*, presented to C. M. Andrews (New Haven: Yale University Press, 1931).

possessed the right to grant land in the colonies.

The arguments of Adams and Jefferson stemmed from literary sources which viewed the history of English and colonial institutions in the light of the political philosophy of the seventeenth and eighteenth centuries. For this reason, and because of the immediate political purposes of their inquiry, neither man felt the need for developing a full-fledged theory of the rights of man to property, and the functions of society with respect to these rights. After independence, however, it became imperative that general and universal principles were developed which would govern the future land policy of the United States with respect to both private and public lands. It was then that the property issue entered into its second stage of theoretical discussion, more important than the first, because political decisions of great importance depended on its outcome.

In a measure, Thomas Jefferson anticipated one of the central issues of that discussion even while he wrote his "Summary View." Immediately after his final refutation of the king's right to grant land in the colonies, Jefferson set forth the basic principles which govern the disposal of land in the good society in these sweeping terms:

"From the nature and purpose of civil institutions, all the lands within the limits, which any particular society has circumscribed around itself, are assumed by this society, and subject to their allotment only. This may be done by themselves, assembled collectively, or by their legislature, to whom they may have delegated sovereign authority; and if they [the lands] are allotted in neither of these ways, each individual of the society may appropriate such lands as he finds vacant, and occupancy will give him title."²¹

²¹"Summary View," *Writings*, ed. Ford, I., 444-445. Ford transcribed "... allotted in either of these ways . . ." where the original had "neither." See, Facsimile Print of the "Summary View," ed. Th. P. Abernethy. *Op. cit.*, p. 21. See also the comment on this paragraph in G. Chinard, *Thomas Jefferson, Apostle of America*, Second Edition (Boston: Little, Brown & Co., 1939), p. 52.

The Property Tax in Canada and the United States

II.—Administration and Supplementation†

By HAROLD M. GROVES*

IN the United States and Canada the property tax is well established both as the major source of local revenue and as a major source of criticism. Some of the criticisms are associated with the base of the tax—considered in a previous article. Some are associated with administration, which will be discussed here. Still others suggest supplementation, some aspects of which will be treated also in this article.

Units of Government

Property tax administration in Canada and the United States is to some extent conditioned by the patterns of governmental machinery prevailing in the two countries concerning which the following generalizations may be offered: (1) Canadian local units are fewer than ours; (2) intermediary units (between province and smallest general-purpose unit) are less frequent; and (3) governmental structure is less rigid and is to a much greater degree in present process of reorganization. The fact that Canadian population is generally much less dense than that of the United States does of course have a bearing on the comparison.

West of Ontario, Canadian local governmental structure is relatively simple. There are no counties or intermediate general units of any kind. There are cities, towns,¹ villages and rural municipalities, and of course school districts. In addition some provinces have much

"unorganized territory" governed directly by the state.

While the rural municipalities of the western provinces differ substantially as to size, they are in respect to area more on the order of our counties than our townships. Thus in Manitoba and Saskatchewan they include typically eight or nine townships and in Alberta, where a reorganization has occurred recently, they cover from 18 to 63 townships.

The pattern of government in Ontario most closely resembles that of the middle western States. Intermediate governments (counties) cover the southern and older section of the Province. However, all of the cities, and some of the towns are independent of the county (as in Virginia). The rural area is organized in townships. The Northern and thinly settled area is much less intensely organized. It is divided into large districts that have significance only as geographic divisions; within these districts are some urban municipalities and townships and considerable unorganized territory. Quebec also has counties though they are not very important functionally. New Brunswick's system is not very different from that of Ontario except that rural municipalities are called parishes and all of the cities and towns (with the special exception of Fredericton) are a part of counties. However, functionally there is the important difference that the parishes are governed directly by the county council and do not have councils of their own as do the townships of

† This is the second of a series of two articles based on documents and other information gathered by the author during a recent trip across Canada. The first article in the series appeared in the February 1948 issue of this journal.

* Department of Economics, University of Wisconsin.

¹ A Canadian "town" is universally a small city intermediate in size between a village and a large urban center. In the United States the term is often used to describe a rural municipality or one that is mixed rural and urban.

Ontario. In Nova Scotia the rural municipality is a mixed species including the villages and sharing costs as to some services with the cities and towns. Counties exist only as geographical units. Prince Edward Island has the usual cities, towns and school districts but no counties and no rural municipalities. The rural part of the island is governed directly by the Province.

School organization in Ontario, Prince Edward Island and Manitoba is mainly like that in most northern states, organized in urban territory about the city or village and, in rural territory, comprising the area contributory to a single school. In the western Provinces, other than Manitoba, much larger districts have been organized. Alberta includes as many as sixty previous units in its re-organized districts and Saskatchewan has enlarged from as little as twenty to as much as a thousand square miles. It is important to note that these districts seldom coincide with municipal boundaries. The rule throughout Canada is that school units have independent powers as to their tax levy. The school district and provincial aid programs of Canada are in a state of flux; Nova Scotia and Manitoba are in the process of reorganizing and enlarging school districts and everywhere the microscopic units are under fire.

It is a well-known fact that Quebec offers many unique features in its local governmental pattern. In this largely French-Canadian Province, tax-supported schools are at the same time both parochial and public. They are organized according to the religious practice of the taxpayer—i.e., Catholic or dissenting—and taxes are levied on each group independently to pay for its school. Corporation taxes (and school aids) are apportioned on a per capita basis. (Perhaps this is another illustration of the alleged

fact that a corporation can have no soul). Parochial schools are also allowed separate taxation "privileges" in Ontario, Alberta, and Saskatchewan.

Quebec also has special-purpose units known as parishes concerned with the financing of churches and related institutions such as cemeteries. Like the schools they usually consist of territory tributary to a particular church. The parish can levy taxes on (Catholic) parishioners for the support of the church.² In the United States we have the legal doctrine that taxation for a non-public purpose is illegal. What constitutes public purpose, however, is mainly a matter of time, place, and circumstance. In communities where all or nearly all of the population see alike on religious matters it no doubt seems as appropriate to pay the minister with tax money as to pay the teacher with public funds.

The Department of Municipal Affairs

Throughout the Canadian provinces (except Prince Edward Island) there exists an institution performing a variety of useful and important functions, namely the Department of Municipal Affairs. Typically it supervises local accounting and reporting, approves local indebtedness (though this is sometimes reserved for direct action by the provincial legislature); exercises the property tax functions of our state tax commissions (though not very adequately) and maintains control (sometimes with mandatory power) of municipal boundaries. A comparable institution in the United States entrusted with many of these same functions is the Local Government Commission of North Carolina.

It has long been recognized that municipal autonomy as to boundaries

² Emile Morin, *La Municipalité, La Municipalité Scolaire, La Paroisse Religieuse et Civile, La Comté*, (Quebec: Université Laval) pp. 44-52.

works very badly. Many a metropolitan area finds itself chopped up into a half dozen arbitrarily bounded units that render effective regional planning impossible. All efforts "to do something about" the situation are stymied by inertia and vested interests. It is high time for some creative innovation in this area and the States might copy a leaf from Canadian experience here. Worthy of emulation also is the Canadian view that municipal boundary lines should yield to changing conditions. The Alberta reorganization plan was devised by the Department of Municipal Affairs and pushed through the provincial legislature with substantial opposition. Once adopted, however, it has developed general approval. Probably the best rule would give local sentiment an adequate hearing and would overrule it rarely. But mandatory power in a state body other than the legislature could prove extremely valuable.

A strong case too can be made for the proposition that school district boundary lines, so far as possible, should be made coterminous with those of some general governmental unit. The school budget can then be made a part of a general budget and be subjected to the direct competition of other governmental expenditures. As to this, both Canada and the United States could learn from Great Britain.

Property Tax Administration

Local assessment in Canada as in the United States is typically in the hands of local assessors representing the ele-

mentary units of general government, notably towns, villages, cities and rural municipalities. But the local assessor's office in Canada customarily is filled by appointment rather than by election and the incumbent presumably continues during good behavior. Except in the sizable urban centers, appointment in the United States is the exception. The difference is due probably to the British tradition—anyway, it affords a substantial advantage. It is a well-recognized rule of government that positions requiring technical skill should not be filled by popular vote. In addition, the assessor who does his work fearlessly is likely to tread on the toes of influential people and he should be shielded against "standing for election" after each roll is completed. In some states the strong propensity for direct popular government leads to the choice of even surveyors by popular acclaim. Of course no one could argue that it matters at all whether a surveyor is a Socialist or a Republican—all that matters is that he be able to survey.

Despite this very real advantage, most Canadians would be the first to concede that their local assessments are no occasion for boasting. Wide inequalities often prevail both between districts and within them. It would certainly be dangerous to conclude, however, that the Canadian product at large is worse or even as bad as that in the United States.³

Improvement in assessment in Canada is being sought in two directions. In Saskatchewan the trend is toward a

³For evidence concerning the United States consult Joseph D. Silverherz, *The Assessment of Real Property in the United States*, Special Report of the State Tax Commission, New York, No. 10, Albany, 1936; Harold M. Groves and A. Bristol Goodman, "A Pattern of Successful Property Tax Administration: The Wisconsin Experience," *Journal of Land & Public Utility Economics*, May, August, November, 1943. Probably the worst Canadian practice is that in Prince Edward Island where the Province and school districts collect a property tax on rural real estate, relying for assess-

ment almost entirely on a provincial valuation made in 1920. The system has been described as follows: "Except for a few adjustments made following a change of ownership of a particular parcel of land, the assessment rolls remain substantially the same as they always were. The valuations appearing on this year's rolls are in almost all cases the same valuations which appeared on last year's rolls. In short, the assessments have secured the blessing of antiquity. No extensive changes are deemed advisable or necessary less some undesirable local feeling be aroused." J. E. Lattimer, *Taxation in Prince Edward Island* (Charlottetown, 1945), p. 27.

state assessment and a staff for this purpose has been recruited and has done considerable work. Local governments are obliged to accept the product. Thus far the central assessors have worked mainly outside of cities. The trend here represents a degree of centralization that would hardly be acceptable in most American states. The other direction of improvement is in the inauguration of more and better supervision and equalization techniques.

Equalization and supervision have made slow progress in Canada partly because of greater separation of sources of state and local revenue than prevails in the States. This cause of neglect is reinforced in some Provinces by the absence of intermediary governments. With the state relying mainly or exclusively on sources other than the property tax⁴ and with few intermediary governments to complicate the picture, it seemed that municipalities could be allowed to go their own way in property tax administration. This weakening of state concern is now widely recognized as one of the unfortunate and unnecessary consequences of separation of sources. And the absence of intermediary governments does not mean that equalization loses all usefulness. The lack of correspondence between school and general municipal units makes some equalization imperative. Moreover, the large and growing volume of school aids, distributed by equalization formulae, presupposes precise data concerning local property tax resources.

Equalization in Canada, as previously noted, is complicated by local option concerning the property tax base. Presumably local differences in derating improvements ought to be disregarded in

the equalization process. Actually this is not always done and local diversities create a complication at best.

It is in Ontario with its elaborate structure of intermediary governments that equalization and supervision have received most attention. However, equalization is largely a county function. The county board may appoint a county assessor to oversee assessment practices and develop data for dividing the county tax fairly among the districts. The data are to include the result of inspecting from 5 to 8 percent of local parcels.⁵ New Brunswick and Quebec provide a considerable program of education for assessors. State Assessment Commissions, within Departments of Municipal Affairs, have general supervision of assessment practices and in several Provinces make equalizations based on population, area and business transacted.

Thus the field of equalization and supervision is not highly developed in Canada and it may be listed as one phase of taxation concerning which we have little to learn from our neighbor. It could learn considerable from the best practice of American states. Space does not permit an account of the development and refinement of the techniques and practices in this area. Suffice it to say that they have amply justified their cost and have demonstrated that a tolerably good assessment of property can be had without a complete centralization of property tax administration.⁶

In one other respect state tax departments have provided a useful service that has little counterpart in Canada. This is the central assessment of public utility property and the integration of utility taxes with the general property tax for local purposes. Utilities in Canada are more often publicly owned than in the

⁴ It is true that several Provinces have intermittently and to some degree made over-all levies on property for provincial purposes but the practice was never as prevalent as in the states and has currently all but disappeared.

⁵ Revised Statutes of Ontario, 1937, Chap. 272, sec. 89; Statutes, 1944, Chap. 7, sec. 9.

⁶ Groves and Goodman, *op. cit.*

United States. And in addition railroad taxation is complicated by contracts under which some provinces agreed to refrain from taxing part or all of private lines. Railroads and other utilities when taxed may be required to make an in lieu payment based on gross income, or they may be assessed by some rule of thumb such as so much per mile of track or line; or they may be assessed by local assessors along with other property. Commenting on this situation in Saskatchewan in 1935 a tax study commission observed:

"It is recommended that the Saskatchewan Assessment Commission assess the properties, plants, machinery, equipment and franchises of all electrical, power, gas, pipe line and other utilities, and certify these values back to the local authorities for purposes of taxation. Under the existing system, the assessment is left to local assessors who perforce are unfamiliar with utility valuations. The Saskatchewan Assessment Commission should employ competent experts for the purpose of making more uniform and equitable the assessment of this type of property. The Commission does not recommend the local taxation of private utility companies upon a flat rate on their gross revenues. This is too inflexible a method. Utility properties should be assessed and taxed as other property so that their burden varies the same as that of other property owners. Centralized assessment will assure uniformity and protect the interests of both utilities and municipalities."⁷

This appears to the author to be eminently sound advice and it could be addressed to other provinces as well as to Saskatchewan.

Tax Delinquency Procedure

In general tax delinquency procedure in Canada is simpler and shorter than

that in most American states. In British Columbia for instance when real property "goes delinquent" the property itself is sold almost immediately to the highest bidder above an upset price established by the municipality. The old owner is then given one year to redeem, paying tax, interest, and penalty. Failing this, the purchaser is given an indefeasible title and any claim of the previous owner must take the form of a suit for damages. The redemption period may be extended by the municipality for one year. Surplus realized from sale is returned to the original owner.⁸

This procedure to say the least is a vast improvement upon the cumbersome, uncertain and slow-moving process followed in most American states. In Wisconsin, for instance, a tax sale involves disposition of an equity only, and competition is supposed to take the form of bidding for liens on greater or lesser proportions of the property being sold.⁹ Thus no surplus is available for return to the delinquent. The owner is given a three-year period of grace for redemption. After the exemption period has expired and after elaborate notice to the original owner and other interested parties (such as the mortgagee) the county clerk may issue tax title to the owner of tax certificates.¹⁰ The insecurity of tax titles by this administrative process is notorious and adversely affects the usefulness of the property to its new owner. The need for revising delinquency procedure has long been recognized but what has sometimes been

is foreclosure in court (following much the same procedure as is followed in the foreclosure of a mortgage). The latter procedure gives a secure title but is too expensive to be widely used. In 1947, a Wisconsin law (Chapter 340) was passed designed to make so-called "in rem" procedure practical for county-held lands. If this act is sustained it should provide considerable improvement in the Wisconsin statutes as similar acts have done in Missouri and New York (See C. Stanley Perry, "Revision of Delinquent Real Estate Tax Enforcement in Wisconsin," *Marquette Law Review*, I, 1945).

⁷ *Report of the Commission of Inquiry into Provincial and Municipal Taxation* (Neil Jacoby, Chairman) Regina, 1936 pp. 183-84.

⁸ Province of British Columbia, Municipal Act, 1945, secs. 254-294.

⁹ This has definitely broken down in practice; buyers, usually by collusion, insist on a lien against all the property.

¹⁰ This is tax title by administrative process; an alternative

described as "government of the lawyers, by the lawyers, and for the lawyers" yields to reform slowly if at all. A Wisconsin Act of 1947, if sustained, will make it possible for counties to obtain secure title to tax-delinquent real estate by a fairly simple "in rem" procedure after three years of delinquency.

*Supplementation of the Property Tax:
Public Enterprise*

In the first article of this series some attention was given to the ways in which the Canadians supplement the property tax, notably through an "in lieu" business tax levied upon occupants and, until recently, through inclusion of income along with property in the local tax base. In this article further attention to this phase of the property tax problem will be confined to supplementation through the municipal ownership of public utilities and the effects on municipal revenues of recent developments in Dominion-Provincial relations.

As to public ownership one is impressed by the degree to which both Provinces and municipalities have developed public enterprise in the utility field. It has been said that state enterprise has flourished and expanded under all parties "but only when private initiative failed to solve general needs."¹¹ As the quotation suggests, the service rather than the profit motive often features public ownership experiments. Nevertheless, it not infrequently happens that a municipality can and does rely on its utility for substantial financial support. Thus in 1946 Regina reported a surplus for its electric light and power department of some \$930,000 and a total for this, plus its water and street railway utility, of ap-

proximately \$1,130,000, more than half as much as the total general property tax.¹²

It is generally conceded that, given high civic levels, respectable standards of administration and a commendable regard for integrity in public office, municipal enterprise can be made to yield a substantial dividend to the public treasury. Such contribution may be criticized on the ground that service should be at cost and that profit on public business is a sales tax in disguise. But profit on public enterprise may also be the legitimate reward of successful venture and management. This latter view is particularly plausible where rates remain comparable with those charged by private companies under similar circumstances. The specifications listed above for successful operation of public enterprise are the rule rather than the exception in Canada and they afford a financial resource of considerable magnitude. Of course, many examples could be cited of cities in the United States where public enterprise has fared equally well. But the number is not so great relatively as in Canada.¹³

*Supplementation: Intergovernmental
Fiscal Relations*

Affecting governmental finance at all levels, and by long odds the most significant recent fiscal development in Canada is the "leasing" of progressive revenue sources by the Provinces to the Dominion. The nature of the recent agreements and the events that lead up to them can not here be described in detail but they can be briefly outlined.

The Canadian constitution, the British North American Act of 1867, gives the Dominion the power to levy both direct and indirect taxes while the Provinces

¹¹ Alexander Brady, *Democracy in the Dominions* (Toronto: University of Toronto Press, 1947), p. 13.

¹² City of Regina, *Financial Statement*, 1946, pp. 34-36.

¹³ Unfortunately, the public-ownership issue in both countries is obscured by the avoidance of federal taxes. It

is interesting to observe in this regard that the recent Dominion-Provincial agreements (about which more presently) specify that new acquisitions during the agreements shall in effect continue to pay federal taxes as of the date acquired.

are confined to direct levies. But time has a way of making mincemeat of constitutions, including the intentions of the Fathers. For behold by agreement the Provinces are now contracting themselves out of much of the field of direct taxation and some of them, entering by a back gate, are well into the field of indirect taxation. Their retail sales taxes, cigarette and other excises are set up formally as "direct" taxes on the consumer (collected at the source) and are constitutionally acceptable as such. Verily, it is a poor lawyer who cannot find a way around a constitutional intent!

The depression of the thirties was particularly severe in Canada. It resulted in an overwhelming demand and need for relief and these were quite uneven throughout the country. Provinces sought to and did increase direct taxes but they were obstructed by the fact that the Dominion was entrenched in some of the inviting fields. Moreover, the Dominion had never allowed the deductibility of provincial taxes for the calculation of its own. In this situation the Dominion granted extensive aid to the Provinces through both loans and grants.

A Royal Commission on Dominion-Provincial Relations rendered a distinguished and epic-making report in 1940.¹⁴ It called for exclusive use of the personal income tax, corporate business, and death duties by the Dominion, an extension of welfare and security programs by the Dominion, and the distribution of an equalization grant by the central government that would enable all provinces to maintain a minimum standard of government with approximately equal burdens. Assumption of provincial

and some municipal debt by the Dominion was also recommended.

The Report was followed by a Dominion-Provincial conference that failed to reach an agreement. Notwithstanding this failure, confronted by the pressures of World War II, the Dominion succeeded in arranging with all Provinces temporary agreements granting to the former the exclusive right to levy income and corporation taxes during the war period. The Provinces accepted payments equal to 1940 income tax collections or an agreed assumption of debt service costs.

At the close of the War another conference was held and again agreement was not forthcoming. Ontario and Quebec—the so-called "have" provinces—protested that they were being asked to "sell their birthright for a mess of pottage." They argued for a more complete separation of sources with the Dominion surrendering a considerable number of levies (including the death tax) to the Provinces. Again the Dominion sought to arrange agreements with the Provinces individually and this time it succeeded with all its constituents except Ontario and Quebec.

The agreements in effect "lease" for five years all corporate income and corporate business taxes, personal income taxes, and death taxes to the central government in return for specified financial allowances based largely on population or population and prewar income tax receipts.¹⁵ Payments were to be adjustable above a minimum in accordance with changes in population and national income. The agreements specify by chapter and section the provincial (and municipal) statutes that are banned: provision is

¹⁴ *Report of the Royal Commission on Dominion-Provincial Relations*, (Ottawa: 1940).

¹⁵ Prince Edward Island gets a flat guarantee; other provinces have options one of which is \$12.75 on 1942 population, plus 50 per cent of provincial income and corpora-

tion tax revenue for the year ending nearest to December 31, 1940 plus statutory subsidies; the other option is 15 dollars per capita on 1942 population plus statutory subsidies. Both options are subject to escalator clauses regarding increases in population and gross national product per capita

made for arbitration in case of dispute. Limited credits are provided for taxes employed by Provinces not coming under the agreements.

The Dominion has repealed its wartime tax on motor fuel. Ontario and Quebec have added 3 cents accordingly to their tax on this base¹⁶ and have reimposed corporate income taxes with moderate rates; they have made no move to reestablish personal income taxes. However, in accordance with its wartime agreements the Dominion has substantially reduced its personal income tax, fulfilling its obligation to make room for provincial levies.

The Dominion government defended its program on the following grounds: (1) the "have-not" Provinces cannot maintain adequate standards on their own resources; (2) the tax bases proposed for "leasing" are really created from the patronage of the country as a whole and cannot be localized as to origin; (3) the Dominion, possessing monetary powers, is in position to stabilize provincial revenues;¹⁷ (4) the Dominion with full power over "cycle-sensitive" taxes can exercise a salutary control over the economy and to this end it can employ a cyclical budget and countercyclical manipulation of tax rates; and (5) elimination of overlapping taxation will stimulate business and clear the way for other reform designed to facilitate industrial progress.

While these are impressive arguments, there are also important questions which might be raised concerning the wisdom of this program in general. It is argued that per capita and other unconditional grants will lead to perpetual bickering and do nothing to encourage underprivileged districts to help themselves.

¹⁶ All provinces increased their gasoline taxes following the Dominion's withdrawal from the field. Increases were from 3 to 2 cents, the latter being confined to Alberta, Saskatchewan, and Manitoba.

Prince Edward Island, for instance, while entering an eloquent plea of poverty at Ottawa, maintains an antiquated tax system and relatively light tax rate at home.

However, we are here concerned with the effect of the new developments on municipal revenues. The leases leave nothing but regressive sources for provincial and local governments. These units are left stranded with a choice between bad and worse in their development of provincial and municipal tax systems. Future idealists and reformers in the provincial and municipal service must be told to go to Ottawa to find scope for their tastes and their talents. The proposal that the Dominion clear the way for provincial sales taxes is in accord with this pattern of development. The Canadian program says to municipalities in effect: "We will monopolize all of the taxes that are worth developing; if you wish to expand your services you must either come to us or encounter the plausible argument that any social gain from expansion of government will be cancelled by the bad effects of bad taxes." The author confesses some bias against centralized institutions; to him this looks like a sure way to throttle a progressive spirit in local government. However, it should be said that the proponents of the program in Canada have acted in good faith to meet an existing situation and insure services in the precarious Provinces rather than with any conscious drive to promote centralization. The program is regarded as experimental and it is felt that, should it result in smothering local initiative and independence, it can be repealed or revised.

A monopoly of the field of tax reform is not a necessary feature of the Canadian tax program and the latter could be

¹⁷ This is a matter of particular concern to the Prairie Provinces where a "wheat economy" produces disastrous fluctuations in net income.

modified to allow some scope for sound municipal tax reform. Municipalities might at least be allowed some scope for experimentation with an integrated income and property base taxable at proportional rates within specified limits. It is true that Canadian experience with the taxation of income at the municipal level has not been encouraging to date. But the verdict of general experience in other countries is by no means conclusively negative. The case against confining local support for local services in our present age of urban living to the ownership of tangible property, ignoring entirely the enormous faculty that lies in the possession of remunerative jobs, is conclusive. The ideal local tax has yet to be evolved on this continent but it does seem a pity to foreclose the area to promising experiments.

Of course the leased tax program provides the municipalities with some financial support (at least indirectly) through the per-capita grant feature. Undoubtedly the municipality of the future will have to look to central collection for some of its support. Particularly is this true where the community is relatively weak and where it has primary responsibility for a service (such as education) in which a strong central interest is manifest. But it is hoped that this program need not be carried to the point where municipalities (along with individuals) lose their individuality. In these days of superbureaucratic tendencies it is well to remember the sound core of our earlier faith in individualism: that personality is something more than a full stomach and that it is always better to help an individual to help himself than merely to help an individual.

None of these comments are intended to detract from the extraordinary achievement made by the Canadians in the field of intergovernmental cooperation. In the United States an attempt to even *call* a federal-state conference would be a revolutionary break with tradition.

The Canadian experiment presents in action the forces of centralization and decentralization which so confound the citizen in modern times. Undoubtedly some kind of compromise-synthesis must eventually be developed. One cannot have his cake and eat it too. He cannot, for instance, allow state-federal duplication of the income tax and achieve maximum simplicity and minimum cost of compliance for taxpayers. The other advantages of centralization are not incompatible with limited duplication. One may conclude that the advantages of complete separation of sources come at too high a price.

Conclusion

It seems unnecessary to recapitulate the many respects in which the United States and Canada can learn from each other in seeking a solution of local revenue problems either within or beyond the general property tax. Considering the proximity of the two countries, their (mainly) common language and their similar (yet different) backgrounds, comparative studies of their political and economic institutions would seem especially promising. It is amazing that the two countries know so little about each other. It is generally agreed that the "balance of trade" in understanding favors Canada. It is hoped that these articles will help in some measure to restore the balance and enlarge the volume of this kind of "exchange."

Simulated Plant-Record Method of Life Analysis of Utility Plant for Depreciation-Accounting Purposes

By ALEX. E. BAUHAN*

PRESENT-DAY requirements in the matter of depreciation accounting for utilities quite often involve estimates of the average life of various classes of utility plant but it is frequently not recognized that, if depreciation accounting for a group of utility-plant units is related to the average life, it must also be related to the estimated "mortality dispersion" of the plant. The manner in which the retirement dates of a group of related plant units, installed in a given year, distribute themselves in the years before and after the average age of retirement, i.e., mortality dispersion, has a marked effect on the theoretically required reserve under any group-depreciation-accrual plan associated with estimated average life.

Such a reserve determination is likely to be a greater misstatement due to hitherto common errors in estimating mortality dispersion than in estimating average life. A determination made in disregard of the dispersion of retirements, if it pretends to be associated with life of plant by the usual group accounting methods, regardless of whether the accrual plan be straight line, sinking fund, or other accrual plan, is without validity. The ratio between an alleged theoretical reserve requirement calculated without regard for mortality dispersion and one giving proper attention to it may be as much as two to one.

If necessary estimates of mortality dispersion as well as average life are to be drawn from past plant experience, methods of life analysis which tell us how the retirements of an installation "vintage" are distributed through the years, such as the here-described plant-record simulation method, are essential. By the application of actuarial principles as used for life-insurance purposes, information as to mortality dispersion as well as average life is usually obtainable; and this is the method commonly used.¹ But the actuarial method, which requires a knowledge of the installation date of each item of retired and surviving plant, is frequently not available because installation dates are not obtainable or because the labor of discovering them in addition to that involved in the pursuit of the method is too great. Fortunately in such cases, not to mention other reasons why the method might be preferred, the desired results can be generally obtained, if at all obtainable, by what has been designated as the "simulated plant-record method."

With some background mention of the phenomenon of utility-plant-mortality dispersion, this article undertakes to explain the principles of that method, as developed in connection with its application to actual extensive analyses of electric-and gas-utility plant.²

Mortality Dispersion

The underlying theory of the simulated plant-record method depends on a concept of each year's additions, followed by the characteristic year-by-year retirement

* Public Service Electric & Gas Co., Newark, N. J.

¹ See, "An Appraisal of Methods for Estimating Service Lives of Utility Properties," prepared by cooperating committees on depreciation, American Gas Association, Edison Electric Institute 1942; also, *Report of Committee on Depreciation*, National Association of Railroad and Utility Commissioners, 1943.

² Additional details and observations on the practical application of the method may be had by reference to a

paper by the author presented at the National Accounting Conference of American Gas Association and Edison Electric Institute at Buffalo, N. Y., April 8, 1947.

of those additions. Records in either monetary units or physical units may be thought of, but ordinarily only monetary records are adequately available in practice. The year-by-year retirements of the plant additions made in a particular year have been found to be distributed usually in some such manner as is illustrated by the bar diagram marked "Annual Retirements" in Figure 1.³ A smooth curve

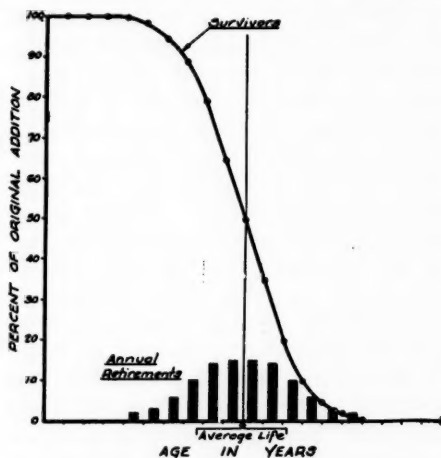


Figure 1—Mortality Dispersion is illustrated by bar diagram marked "Annual Retirements." It shows how retirements of a single installation of a multiplicity of related plant units typically occur at ages earlier than and later than average life. If the annual retirements are successively subtracted from the original installation the upper curve of "Survivors" is obtained.

connecting the ends of the bars would be the retirements-frequency-distribution curve. This diagram represents the phenomenon of mortality dispersion, recognition of which is so essential to any proper consideration of group-plant depreciation.

The upper curve marked "Survivors" is obtained by subtracting from the original additions the accumulated annual retirements as obtained by adding the year-by-year values of the "Annual

Retirements" curve. For any year it shows how much of those original additions remain. In generalized form the annual retirements and survivors are expressed in percent of the original additions as a function of various percentages of average life.

Several families of standard generalized mortality dispersions have been developed. The most generally known and used are those published by the Iowa Engineering Experiment Station, frequently called the Iowa type curves.⁴ Specimens of these are reproduced in Figure 2. Individual companies, con-

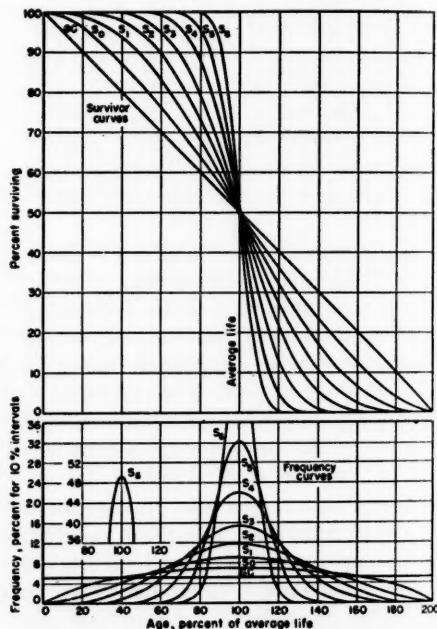


Figure 2—Curves for Symmetrical Mortality Dispersion. (Adapted from Iowa Engineering Experiment Station Bulletin 155, Fig. 29, by Robley Winfrey, Type GC added)

sultants and other authorities have also developed dispersion types based on their own experience. Such standardized mortality-dispersion types serve to conveniently represent and designate the

³ Edwin B. Kurtz, *Life Expectancy of Physical Property Based on Mortality Laws* (New York: Ronald Press, 1930); Edwin B. Kurtz, *The Science of Valuation and Depreciation* (New York: Ronald Press, 1937).

⁴ Robley Winfrey, *Depreciation of Group Properties*. Iowa Engineering Exp. Sta. Bul. 155, 1942.

experienced mortality dispersion, to conveniently designate the estimates of future dispersion, and to minimize the work of computing theoretical reserve requirements.

Principle of the Simulation Method

The simulated plant-record method of life analysis consists of applying such standard mortality dispersions to the record of plant additions and discovering by trial and error which particular combination of average life and mortality dispersion (sometimes hereinafter called a mortality pattern or a mortality characteristic) best simulates in calculated results the record of actual balances or actual retirements. The method serves equally whether applied to records of balances or retirements, but this article describes the method in reference only to balances. The description of the method as to retirements would follow along the same lines.⁵

It can be illustrated by considering first only a single year's additions, as shown in Figure 3, of which the survivors

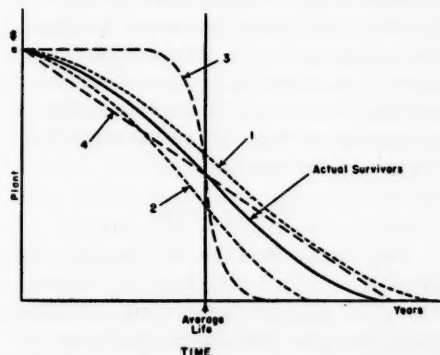


Figure 3—Fitting a Single Year's Additions. The solid line represents actually recorded survivors (balances) of an original addition *a*. The dotted lines illustrate several possible attempts to type or "fit" the actual balances with balances calculated from the original additions by the application of standard survivorship ratios. These particular trials fail because, in the case of (1), average life is too long, (2), average life is too short, (3), mortality dispersion is too narrow, (4) mortality dispersion is too wide.

⁵ The basic principle of the method is described in the 1943 Report of the Committee on Depreciation of the National

or balances in succeeding years diminish in accordance with the mortality characteristic of the plant. Either graphically or numerically it is an ordinary task to determine which one of a set of standard mortality patterns, when applied to the additions, gives the same, or as nearly the same, survivors or balances at various time points in the actual plant record. In the process of fitting, many patterns would be tried, among them probably being such as those shown by dotted lines in the diagram which obviously do not reproduce the actual balances because, in the case of trial (1) average life is too long, in (2) average life is too short, in (3) mortality dispersion is too narrow, and in (4) mortality dispersion is too wide. This essentially is the procedure of the actuarial method for typing the mortality pattern, and the simulation method for this simple case is the identical procedure.

If the plant history is a composite of a number of year's additions, each with its characteristic mortality pattern, and if the record of retirements or survivors of each particular year's addition is known, the actuarial approach will serve.⁶ If the

Association of Railroad and Utility Commissioners, p. 104. Stages in the development of the method can be traced in: Cyrus G. Hill, "Depreciation of Telephone Plants," *Telephony*, March 18 and 25, 1922; Walter J. Lyman, "Fundamental Considerations in the Preparation of a Power System Master Plan," *Edison Electric Bulletin*, October 1933, p. 218; Testimony by Company Witness in New York State Public Service Commission Case 8230 re: New York Telephone Co., 1935; testimony by C. Beverley Benson in New York State Public Service Commission Case 8490 re: Syracuse Lighting Co. and Case 8403 re: Queens Borough Gas and Electric Co., 1937; testimony by C. Beverley Benson in State of Ohio Public Service Commission Cases 1100, 11218, and 11442 re: East Ohio Gas Co., City of Cleveland, p. 38; also in papers presented at National Accounting Conference of American Gas Association and Edison Electric Institute at Buffalo, April 8, 1947: H. R. Whiton, "The Indicated Retirement Approach to the Simulated Plant Record Method of Estimating Lives of Mass Accounts of Utility Property for Depreciation Accounting Purposes;" P. H. Jeaynes, "Indicated Renewals;" Alex. E. Bauhan, "Life Analysis of Utility Plant for Depreciation Accounting Purposes by the Simulated Plant-Record Method."

⁶ The actuarial method merges the records of all the vintages as a function of age (not time). Thus merged, the

(Footnote 6 continued on page 132)

retirements or survivors of each individual year's additions are not identifiable and recorded, as is frequently the case, the actuarial method is not available; but we can look to the total survivors or balances resulting from all the years' additions and get the mortality characteristic of the account by application of the simulation method.

In elementary fashion this is illustrated in Figure 4. If the plant additions from

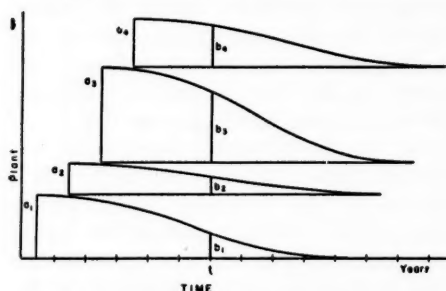


Figure 4—A Plant History. Showing actual survivorship elements b_1, b_2, b_3, b_4 , etc. resulting from annual additions a_1, a_2, a_3, a_4 , etc. Their sum is the book balance at time t . The simulation method calculates these elements from recorded additions and assumed survivorship curves and judges the reasonableness of the assumption by comparing the sum of the calculated survivorship elements with the book balance.

year to year are represented by the dollars shown as a_1, a_2, a_3, a_4 , etc., then in the course of time retirements will be made from these additions leaving survivors tapering off to zero in accordance with the mortality characteristic. It is this experienced but unknown mortality characteristic which we aim to discover by trial and error. The combined plant balance in any year will consist of the survivors of these successive additions. Thus the balance at time t is the sum of the survivors b_1, b_2, b_3, b_4 , etc. The simulation procedure consists of experimentally reproducing these survivorship elements from the additions record.

Using an assumed mortality pattern it calculates what the survivors would be

(Footnote 6 continued from page 131)

ratio of survivors to additions or the ratio of yearly retirements to additions as a function of age may be typed by fitting standard mortality patterns.

at time t for each annual addition. These calculated survivors are then added to give a simulated balance which is compared with the actual balance. Such comparison of simulated and actual balances would be made at a number of time points in the plant's history. If the mortality pattern was well selected the difference between the simulated and actual balances would be small. If a poor selection was made, it would show up in a large deviation between the calculated figure and the actual. Thus trials would be repeatedly made until that particular one is found which best simulates the actual plant-balance record.

Stated in other words, the essence of the simulated plant-record method is that an effort is made by trial and error to duplicate the year-by-year balances of the account by a series of corresponding calculated, or "simulated," balances arising from the assumption that each year's actual additions were retired in accordance with a selected pattern of average life and mortality dispersion. Successive pattern selections are tried until a pattern is found which results in a series of year-by-year calculated balances simulating the progression of actual balances as closely as possible. That best fitting pattern is deemed to represent the experienced average life and mortality dispersion of the account.

Fitting Process

This comparison can be roughly made graphically; i.e., the curve of the actual balances can be drawn on coordinate paper and the calculated results for each trial plotted, somewhat as shown in Figure 5. When the plotted points for a particular trial fall closer to the actual line than for any other trial, that trial is said to represent the average life and mortality dispersion of the plant. However, this method is rather crude in

that the distinction between the best fit and several inferior fits is frequently not discernible, and, of course, the judgment of the observer enters into such a determination. Deciding between two close fits is not, as might at first be supposed, a matter of choosing between two average lives which are close to each other. The average lives of two close fits may be quite far apart.

A more precise and more objective comparison is by the use of the least squares method, which is commonly used for curve-fitting purposes. By this method the year-by-year differences between the calculated and actual balances are observed; then, to accentuate the larger discrepancies, the differences are squared. The trial which shows the smallest sum of squared differences is deemed to be the best fit and to be indicative of the average life and mortality dispersion of the account.

Required Data and Survivors' Tables

In practice the procedure requires a tabulation of the additions and the balances for the account under consideration going back as far as they may be available. If small early additions are not available, they may be roughly estimated. The operation of the method is such that the small early additions, and in the utility business the early additions were ordinarily small, have little influence on the final answer, and precision in estimating them is of no importance.

Before the simulated plant-record procedure is started there should be available not only a suitable statement of annual additions and balances for the plant under consideration, but also a large assortment of precalculated survivors tables based on the generalized tables or curves of some family of standardized dispersion types, such as the Iowa types. For a given

average life and for a given type of mortality dispersion, these tables show the percent of a year's additions which survive in each succeeding age-year. In one application some 2,000 survivors' tables based on the Iowa types are in regular use. They show percentage of survivors to one decimal place for ages 0.5 to 59.5 years, for twenty-six different types of Iowa dispersions and for average lives running from 5 years to 150 and more years.

The physical arrangement of the tables is important. In any extensive study it is out of the question, because of the labor involved, to rewrite the table on a computation form every time a computation is made. The tables should be written, photographed, or printed on stiff durable paper, or on plastic coated paper, and then cut into strips so that each strip will show the survivors' percentages corresponding to each age-year for a particular pattern of average life and mortality dispersion. Survivors' percentages need not be shown for more than 55 or 60 years, if the pattern extends beyond such an age, unless it is expected to work with plant histories which include a greater span of years. Assuming that the work sheets will show additions chronologically downward, and this is believed to be the best arrangement, the survivors-table strips should run upwards by ages and the line spacing should be identical with that on the work sheets. Thus, the survivors' percentages can be used as multipliers of annual additions by simply laying the strip alongside of the additions column without the necessity of rewriting the survivors' percentages.

The tables should show percent survivors at mid-year intervals. This convention is desirable because, in order to facilitate calculation, it can be assumed that all the additions made at various times during a calendar year are equiva-

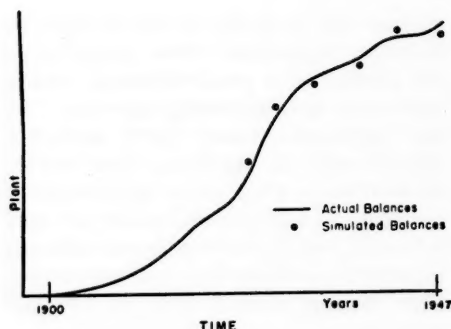


Figure 5—Comparison of Balances. Balances calculated from assumed patterns of average life and mortality dispersion can be recorded and compared graphically (or numerically) with actual balances over a range of years. That pattern whose balances most nearly simulates the actual balances is the sought for average life and dispersion of the plant history.

lently represented by a single installation on July 1. The survivors of these additions may therefore be considered to be one-half year old at the end of the 1st year, $1\frac{1}{2}$ years old at the end of the 2nd year, etc. It follows that the survivors tables are properly set up at the half-year ages.

Orderly filing of the survivors-table strips facilitates their use. A visible index cabinet, using a file pocket deep enough to carry the length of the strip (10 or 11 inches) and wide enough for 10 strips, with celluloid-holding strips at the top and bottom of the pocket, has been successfully used. Alternatively, the survivors tables may be on pages and the list of additions may be written on a movable strip so that the additions strip can be moved from page to page and column to column of survivors tables for the cross multiplication.

Computation

The computing process consists of putting the column of survivors' percentages in juxtaposition to the column of annual additions. The bottom of the survivors table, corresponding to age 0.5 years, is placed opposite the year in the additions column for which it is

desired to obtain a calculated or simulated balance for comparison with the actual balance. The figures in the additions column are then cross multiplied by the figures appearing on the same line in the survivors table. The summation of these cross products is the desired simulated balance for comparison with the actual balance. To get the simulated balance for any other year the beginning of the survivors table (age 0.5) is aligned with the addition of the selected year and the cross multiplication and summation process is repeated. Thus, the simulated balance and the actual balance can be compared at as many points in the life history of the account as desired.

A form has been developed for conveniently recording these simulated balances as well as their squared deviations from the actual balances. Another form records the mean squared deviations in a manner which economically guides the succession of mortality pattern trials.

The number of trials per account varies between 50 and 100. Short cuts are available which can frequently be used to limit the number of trials. For instance, the number of trials for a given type of dispersion can often be limited to three, two in the approximate best fitting average life region and the third located precisely at the best fitting average life by means of a rapidly performed solution of the equation for least mean squared deviation on the tolerable assumption that over a limited range the simulated balance for any year is a straight line function of the average life assumption.

The work can be speeded considerably by using lumped additions instead of annual additions. That is, the additions of each five-year period may be taken as if made in the middle year of the period or, more accurately, in that year in which the weighted mean time of installa-

tion for the 5-year period occurs. In this case, years selected for comparison of actual and simulated balances must fall on only the terminal years of the lumped periods. The lumping of additions need not be by uniform periods, but the special care required in handling such an operation may not be compatible with production methods. Such rough computations, if handled understandingly, can reduce the time required to discover the area in which the desired fit falls, and can be finished off with the more refined computation using each year's additions in only that area.

Term of Balance Comparisons

A decision which must be made before survivors calculations are started is the extent of and the intervals at which points of comparison between actual and calculated balances will be made. That is, shall the comparison be of annual balances throughout the entire history of the account, as may have been inferred from the previous discussion, or merely between 1940 and 1945 or between 1905 and 1945, or over some intermediate span. It is essential to the process that the analysis include comparisons over a fairly extended period. If the term of comparison is too short, the results are indeterminate. It is, for instance, theoretically impossible to make a determination from a single year by the simulated plant-record method as, by the use of intermediate lives and dispersions, an infinite number of patterns can be found which will yield a calculated balance equal exactly to the actual balance. This condition is probably not much improved by using a span of only four or five years. Practically, in dealing with the wider dispersions typical of utility-plant accounts, it is believed that indeterminateness will be avoided if the comparison term is made not less than 15 years.

As to extending the term of comparison beyond that required for determinateness, the choice lies in the statistical philosophy which is to be followed. If one wishes to recognize more fully the influence of earlier experience on the shape of the overall survivorship pattern, it is well to make the term quite extended. In the comparisons made in recent years is included the late history of old plant, but in the comparisons of earlier years this same plant is included in its younger days. By the more extended comparison term we give added weight to the experience of earlier years. Thus, in the case of short lived accounts, is introduced life and dispersion indications of vintages which have no present-day survivors. One reason for doing this, assuming that necessary future redeterminations will be similarly made, would be to avoid the undue fluctuations of life and dispersion estimates which would result if attempt were made to follow the vicissitudes of short-time-life and dispersion indications. The point, however, is not as important as may seem for the reason that with any plant which has had the growth characteristics exhibited by most utility accounts, the additions of recent decades so far outweigh the additions of earlier decades as to make balance comparisons of the recent periods controlling in the findings of the simulated plant-record process as here outlined. In such cases the result will not be materially changed by making balance comparisons prior to, say 1920, although it may be desirable to do so if it is thought that the acceptability of the conclusions is thereby improved.

It is, however, not necessary for the observations to be made in each year in the selected comparison term. It appears that, ordinarily, balance comparisons made for every fourth or fifth year will give a result not importantly different than comparisons made on the basis of

every year. This reduces the labor of the computations considerably.

Conclusion

In any application of this method it goes without saying that the first requirement is a good record of the year-by-year additions and balances classified according to the present system of accounts. Carefully planned production methods are essential. The use of conveniently set up survivors-tables strips, instead of writing and rewriting the figures, and the use of a convenient computation form are steps to that end. The adoption of the mean-square-of-differences-tallysheet, which economically guides the succession of trial and error calculations of simulated balances until the least mean square and thus the best fitting pattern of average life and mortality dispersion is found, is an important feature of the procedure. Time and economy considerations will recommend the use of skilled calculators with key-operated machines or automatic multiplication from punched cards.

Basically, operating on corresponding data and fitting the same family of generalized mortality dispersions, the re-

sults of the simulation method will be the same as those of the actuarial method. The method is entirely independent of irregularities in the amount or rate of growth, and functions equally well on declining plant balances as on increasing balances. Only in the rare case of the plant's being perfectly static does the method become indeterminate as to dispersion type, although not as to average life indication.

Where a fairly stable life and dispersion characteristic has been experienced, the plant-record-simulation method will discover it. Where the life and dispersion have been moderately fluctuating, the method will give a desirably weighted average indication. In either case the result should be helpful in selecting a suitable average life and dispersion for the determination of accrual rate and theoretical reserve requirement for future depreciation accounting associated with life. If the life and mortality dispersion characteristics have fluctuated wildly, or if the plant is immature in relation to the best fitting pattern, neither this method nor any other statistical procedure will give an answer of any prophetic merit.

Shopping Centers in Urban Redevelopment

By ROBERT M. LILLIBRIDGE*

IN analysis of redevelopment plans a need has been evident for some criterion by which to judge shopping center proposals. This study presents a method by which to arrive at such criteria and makes application of the method in a Chicago area, by way of concrete illustration.

The consideration of proposed land uses in an area to be cleared of blight may well emphasize as the primary requirement that the "reclaimed" land should fulfill the highest possible function consistent with the strategic position it often occupies. Unless this is the approach, in respect to both economic and social functions, blight may occur again, with its attendant expense to all in the urban community.

Recurring blight is less likely if the proposed land uses of the redeveloped area bear definite relation to land uses in adjacent, relatively "healthy" areas. Especially is this true if the blighted area is small in size and unable to exert strong influence upon the surrounding environment. The relatively healthy areas usually contain industrial or residential land uses. With redevelopment, most blighted areas near in to the city center can thus be expected to comprise commercial or industrial districts, residential neighborhoods, or entire residential communities.

The manner in which the occupants of the redeveloped residential areas earn their livelihood is dependent upon economic activity in the city as a whole, and is indivisibly related to the national economic situation. Physical planning

of such redevelopment areas cannot materially influence or control these factors. A portion of the total economic scene, however, does take place within the residential neighborhood or community. The location for this activity is the shopping center; which does afford opportunity for planning to the advantage of the entire community.

Shopping facilities represent not only an economic focus but a social one. They offer the natural means of bringing the people—whether old or new residents of the area—together. People who visit the super-market for their Saturday grocery shopping, or drop in at the movies, have in mind buying goods or entertainment. But in thus mingling with their neighbors they may also find the makings of neighborliness, of a bowling team or a chess club, or a "get-together" on some common cause for the welfare of the community. Along with the schools and churches, the shopping centers thus can offer considerable aid toward gradually welding the community together in a way that will make it a bulwark against blight.

To become a successful "social cementing agent" in the community, and at the same time maintain their own economic health, the shopping centers must be well-planned in both the physical and the economic senses. Without this forethought, these facilities may be poorly located and there may be too many of them to support either their operations or the people of the neighborhood whom they employ.

Types of shopping facilities required in redevelopment plans for residential areas are those serving a small section of a neighborhood, those meeting neighbor-

* Land Planner, Chicago Housing Authority. Thanks are due Iris Ashwell and John M. Ducey of the Authority staff for aid throughout preparation of this study and to Clarence S. Stein and Walter H. Blucher for critical review of the manuscript.

hood needs, and those meeting community needs. The first type implies the isolated drug or grocery store, serving a small portion of the neighborhood and located wherever population density requires more convenient shopping facilities than those afforded by the neighborhood shopping center. Facilities meeting neighborhood needs are usually visited daily by representatives of most families principally for purchases of staple food items. The third type is visited probably once a week by representatives of community families and allows purchase of large supplies and sizeable items without travel to the central business center. The latter two types involve sufficient facilities that grouping into neighborhood and community shopping centers is feasible and does normally occur.

In order to plan these neighborhood and community shopping centers that they can become pleasant and profitable gathering places, it is necessary to estimate the degree of their need, allow for their proper location, and determine their preferable design. The control of land use likewise is important in redevelopment. In this study which deals with only a portion of the redevelopment problem, however, it will be taken for granted that the control of land use through measures more effective than zoning will occur. Wise land use administration, whether the land is privately- or publicly-owned, will be a necessary adjunct to the successful preservation of values recovered with such difficulty by society. With land use control, the facilities of shopping centers will afford maximum advantages to both operator and consumer.

The role of neighborhood and community shopping centers in a redevelopment program can best be studied in a specific problem area, numerous examples of which can be found in Chicago

in the great crescent of blight around the central business district of the city.

The Chicago problem area selected is not defined in detail, but, as graphically portrayed in Figure A, is a community

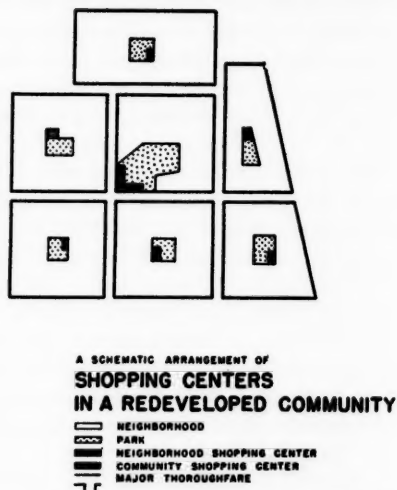


FIGURE A

extending over approximately two square miles. As in most urban areas where the transportation system converges on the central business district, such a community is divided by the anticipated Chicago major thoroughfare system into neighborhoods. Seven such neighborhoods comprise the community herein considered. Each neighborhood would have a gross area of approximately 160 acres. Population density in the total community, at the minimum, would probably be at least 40,000 to 50,000 persons per gross square mile. In this study, the conservative density figure used—40,000 persons per gross square mile—would result in a neighborhood population of 10,000 persons and a total community population of 70,000.

Estimation

Numerous yardsticks have been developed for estimating retail facilities and

the area they occupy. These measurement methods usually take the form of lineal feet of store frontage per thousand population or of facility schedules for neighborhoods of various dwelling unit totals (1, 28, 30).¹ Even if used as rough guides, these yardsticks are unreliable, due to their emphasis on dwelling units or population rather than on the base of all shopping centers—the consumer's dollar.

The only valid means of estimating the need for retail facilities and the area they should occupy is analysis of annual income and expenditures into units of purchasing power for the population being considered (2, 6). Since American cities containing blighted areas show individual patterns for family expenditures in the various income groups, data for each particular city are needed to decide the extent of shopping centers in redevelopment areas.

The most dependable data for basing these estimates are to be found in bulletins of the Bureau of Labor Statistics, U. S. Department of Labor. Though the national annual average expenditure figures determined by the U. S. Census of 1940 might be used if they were carefully checked against local conditions, their broad scope makes it difficult to use them in dealing with urban areas and with special income groups.

In 1935-36, the Bureau of Labor Statistics made a detailed study of family expenditures in cities located throughout the country. The study included the two metropolitan areas of Chicago and New York; six large cities in the 300,000-population class—namely, Atlanta, Columbus, Denver, Omaha, Council Bluffs, Portland, Ore., and Providence; 14 middle-sized cities; and nine small cities. The published data include major cate-

gory and item expenditures for families of various sizes and incomes. In details, these data for 1935-36 differ from the expenditure pattern of 1946 which we use in this study, but the broad elements are quite similar.²

As a basis for estimating shopping center needs, these data must be supplemented, of course, by accumulated knowledge of retail business operations in neighborhoods and communities of varied composition. If the data are applied to other urban areas of similar character and size, careful check with the particular environment under study is of major importance.

To arrive at an estimate for shopping facilities necessary in a redevelopment area, four major questions must be answered:

- (1) What is the total annual income probable in the area after redevelopment?
- (2) What will be the item expenditures in the various shopping centers?
- (3) At what facilities in the shopping centers will this income be spent?
- (4) What is the character of those facilities as to rent and areas when considered singly, and as total area when grouped?

In utilizing the Bureau of Labor Statistics data to answer these questions, and in applying the other measures necessary for the final estimate of shopping center needs, a total of 16 steps is required.

1. Estimate probable average annual family income in the neighborhoods under study.
2. Compute neighborhood total income figures by multiplying family income estimate by estimated number of families.
3. Secure consumers' price index figures for 1935-36 and current date.

² Since this analysis has been completed, a more recent, yet in some respects less detailed study, has been made available: U. S. Dept. of Labor, Bureau of Labor Statistics, "The City Worker's Family Budget: General Description of Purpose and Methods Followed in Developing the Budget of 34 Cities in the Spring of 1946 and Summer of 1947," Serial No. R1909, preprint from *Monthly Labor Review*, February 1948. Washington, D. C., U. S. Gov't. Printing Office, 1947.

¹ For these and other references, see numerical listing of Bibliography which is appended to this study.

4. Determine 1935-36 equivalent of current average family annual income probable in the area after redevelopment.
5. Itemize expenditures for 1935-36 equivalent incomes and convert to percentages of the total.
6. Estimate percentages of major category or, where needed, item expenditure which will be spent in the neighborhood, community, and other shopping centers.
7. Apply the major category and shopping center estimate percentages to the total annual income probable in the area after redevelopment.
8. Apply item expenditure percentages to the major category dollar figures.
9. Allocate item expenditures to facilities.
10. Summarize item expenditures allocated to the various facilities.
11. Check summaries for the facilities with respect to gross annual receipts, reallocate if necessary, and determine number of each type of facility.
12. Estimate areas for individual facilities.
13. Estimate rentals for individual facilities.
14. Check areas and rentals with gross annual receipts.
15. Compute total area needed for all facilities.
16. Allow parking area in relation to total facility area.

Steps 1 and 2 are necessary to answer the first question, and steps 3 through 8 to answer the second question. Steps 9 through 11 bring answer to the third question, and the fourth question is answered and estimation is completed through application of steps 12 through 16.

For the Chicago problem area under study, the steps were worked out as follows:

Step 1: Estimate probable average annual family income in the neighborhoods under study. Average annual family income was estimated at \$2,000 for four of the seven neighborhoods, and \$3,000 for the other three. The \$2,000-income figure represents the amount of average annual family income in public housing during 1945-46 near the area under study, and therefore might well be taken as the

probable income of residents of public housing in the redevelopment area, or of residents of privately-financed, low- or medium-low-income level housing. The \$3,000 figure approximates the probable average in privately-financed housing for medium-level incomes. In assumption of average annual family incomes for the neighborhoods, it should be emphasized that the figures represent averages. As averages, they do not represent stratification of income levels in separate units of the city. Such stratification will need to be prevented through intelligent disposition of housing for income groups obtainable through various types of investment.

All of these neighborhoods would require individual shopping centers except one \$2,000 neighborhood which would contain the community shopping center and would conduct its usual neighborhood shopping in the larger center.

Step 2: Compute neighborhood total income figures by multiplying family income estimate by estimated number of families. Neighborhood total income figures were computed on the basis of 2,857 families per neighborhood, which figure was secured by applying the existing blighted area ratio of 3.5 persons per family to population figures of 10,000 persons per neighborhood. Each of the four \$2,000-income neighborhoods therefore would show a total average annual income of \$5,714,000. And each of the three \$3,000-income neighborhoods would show a total average annual income of \$8,571,000.

Step 3: Secure consumer price index figures for 1935-36 and current date. The Chicago consumer price index for all items stood at 153 in December 1946, and at 97 in December 1935, according to the Bureau of Labor Statistics (5).

Step 4: Determine 1935-36 equivalent of current average family annual income probable in the area after redevelopment. When the

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BLS price index ratio was applied, the December 1946 incomes of \$2,000 and \$3,000 were found to be equivalent to December 1935 incomes of \$1,270 and \$1,900, respectively.

Step 5: Itemize expenditures for the 1935-36 equivalent incomes and convert to percentages of the total. From BLS Bulletin 644, Vol. II, "Family expenditure in Chicago, 1935-36" (3), expenditures were itemized for 1935-36 incomes of \$1,270 and \$1,900 and converted to percentages of total expenditures. (See Tables I and II.)

Step 6: Estimate percentages of major category or, where needed, item expenditures which will be spent in the neighborhood, community, and other shopping centers. Whether expenditures will be made in neighborhood, community, or other shopping centers depends upon numerous factors, including accessibility of the particular facilities, proximity of other facilities, and the income class or classes under study (7, 13). It is assumed that neighborhoods in the blighted areas near the central part of the city, when redeveloped, will probably be bounded by major thorough-

TABLE I—MAJOR CATEGORIES OF EXPENDITURES AND ESTIMATED PERCENTAGES SPENT IN SHOPPING CENTERS

| MAJOR CATEGORY | *Percent of Total Expenditure | | Estimated Percent of Major Category Expenditure Spent In Shopping Centers | | |
|---|-------------------------------|-----------------------|---|-----------|-------|
| | \$2,000 Annual Income | \$3,000 Annual Income | Neighborhood | Community | Other |
| FOOD | 40.7 | 33.5 | 50 | 15 | 35 |
| HOUSING except for | 18.5 | 16.5 | 0 | 0 | 100 |
| Repairs and Replacements..... | ..... | ..... | 0 | 10 | 90 |
| FUEL, LIGHTS AND REFRIGERATION | 7.7 | 9.3 | 0 | 0 | 100 |
| except for Heating Fuel..... | ..... | ..... | 0 | 5 | 95 |
| OTHER HOUSEHOLD OPERATION..... | 2.6 | 2.9 | 75 | 20 | 5 |
| FURNISHINGS AND EQUIPMENT..... | .8 | 3.3 | 25 | 45 | 30 |
| CLOTHING, except for | 8.2 | 7.6 | 20 | 35 | 45 |
| Shoe Shines and Repairs, Cleaning and Pressing..... | ..... | ..... | 60 | 30 | 10 |
| AUTOMOBILE, except for | 3.2 | 2.8 | 25 | 30 | 45 |
| Automobile Purchase..... | ..... | ..... | 0 | 30 | 70 |
| OTHER TRANSPORTATION..... | 2.8 | 2.9 | 0 | 0 | 100 |
| PERSONAL CARE..... | 1.9 | 2.3 | 65 | 25 | 10 |
| MEDICAL CARE, except for..... | 6.0 | 4.6 | 20 | 45 | 35 |
| Oculist and Other Specialists..... | ..... | ..... | 0 | 50 | 50 |
| RECREATION..... | 1.1 | 3.8 | 15 | 50 | 35 |
| TOBACCO..... | 2.4 | 2.2 | 45 | 20 | 35 |
| READING..... | 1.1 | 1.1 | 25 | 25 | 50 |
| FORMAL EDUCATION..... | 1.3 | 2.3 | 25 | 25 | 50 |
| CONTRIBUTIONS, except for..... | 1.7 | 2.1 | 0 | 0 | 100 |
| Personal Gifts..... | ..... | ..... | 10 | 40 | 50 |
| OTHER ITEMS..... | 0.0 | 2.8 | 0 | 0 | 100 |

* These percentages are based upon data from U. S. Bureau of Labor Statistics, Volume II of Bulletin No. 644, "Family Expenditure in Chicago, 1935-36." In this shopping center study, the percentages are applied to 1946 income equivalents of the 1935-36 incomes.

TABLE II—ITEMS AS PERCENTAGES OF MAJOR CATEGORIES OF EXPENDITURE AND THE FACILITIES AT WHICH IT IS ESTIMATED THE ITEMS WILL BE SPENT

| MAJOR CATEGORY AND ITEM EXPENDITURE | *Percent of Major Category, Annual Income of | | Facilities at which it is Estimated Items will be Spent | |
|---|--|---------|---|---|
| | \$2,000 | \$3,000 | Neighborhood Shopping Center | Community Shopping Center |
| FOOD | | | | |
| Food at Home | 93.2 | 90.7 | Supermarket | Supermarket Grocery, Meat market, Bakery |
| Food away from Home | | | | |
| Meals at work..... | 4.4 | 7.4 | | small part in Tavern and Restaurant |
| Meals at School..... | 1.1 | .6 | | |
| Ice Cream and Candy..... | .2 | .1 | Supermarket Drugstore | Drugstore, Restaurant |
| Soft drinks, Beer and Alcoholic | | | | |
| Drinks..... | .7 | .8 | Drugstore | Drugstore, Tavern |
| Other meals..... | .4 | .4 | Drugstore | Drugstore, Restaurant |
| HOUSING | | | | |
| Home Owning Families | | | | |
| Repairs, Replacements | 7.3 | 13.4 | | General Mer- chandise, Fuel and building supply yard |
| Other..... | 92.7 | 86.6 | | |
| FUEL, LIGHTS & REFRIGERATION | | | | |
| Ice..... | 10.4 | 6.3 | | |
| Gas..... | 21.9 | 26.0 | | |
| Electricity..... | 26.6 | 24.2 | | |
| Heating Fuel..... | 41.1 | 43.5 | | |
| OTHER HOUSEHOLD OPERATION | | | | |
| Telephone..... | 35.2 | 41.9 | | |
| Laundry Supplies..... | 31.5 | 22.4 | Supermarket, Gen. Mdse. | Supermarket, Gen. Mdse. |
| Laundry sent out..... | 12.8 | 17.2 | Laundry or Tailor- pickup** | Laundry |
| Stationery, etc..... | 6.0 | 4.7 | Gen. Mdse. | Gen. Mdse. |
| Express, etc..... | .4 | .2 | | |
| Water Rent..... | 5.7 | 6.3 | | |
| Other, including flowers for the home.. | 8.4 | 7.3 | Gen. Mdse. | Gen. Mdse. Florist |
| FURNISHINGS AND EQUIPMENT | | | | |
| Kitchen Equipment..... | 6.7 | 21.3 | Gen. Mdse. | Gen. Mdse., Appliance |
| Cleaning Equipment..... | 8.9 | 1.4 | Gen. Mdse. | Gen. Mdse. Appliance |
| Laundry Equipment..... | 15.1 | 6.1 | Gen. Mdse. | Gen. Mdse. Appliance |

SHOPPING CENTERS IN URBAN REDEVELOPMENT

143

TABLE II—Continued—ITEMS AS PERCENTAGES OF MAJOR CATEGORIES OF EXPENDITURE AND THE FACILITIES AT WHICH IT IS ESTIMATED THE ITEMS WILL BE SPENT

| MAJOR CATEGORY AND ITEM EXPENDITURE | *Percent of Major Category, Annual Income of | | Facilities at which it is Estimated Items will be Spent | | | | | |
|---|--|---------|---|---------------------------|------|-----|--------------------------------|--|
| | \$2,000 | \$3,000 | Neighborhood Shopping Center | Community Shopping Center | | | | |
| | | | | | | | | |
| Glass, China and Silverware..... | 1.0 | 2.0 | Gen. Mdse. | Gen. Mdse. | | | | |
| Linens, Blankets and Curtains..... | 27.9 | 17.7 | Gen. Mdse. | Gen. Mdse. | | | | |
| Floor Coverings..... | 21.6 | 9.1 | Gen. Mdse. | Furniture | | | | |
| Furniture..... | 11.8 | 31.1 | Gen. Mdse. | Furniture | | | | |
| Other Furnishings..... | 7.0 | 11.3 | Gen. Mdse. | Furniture, Gen. Mdse. | | | | |
| | \$2,000 | | \$3,000 | | | | | |
| | Male | Fem. | M&F | Male | Fem. | M&F | | |
| CLOTHING | | | | | | | | |
| Headwear..... | 2.7 | 2.7 | | 2.7 | 3.2 | | Gen. Mdse. | Men's, Women's Clothing |
| Coats & Other Wraps.. | 6.4 | 8.7 | | 7.0 | 8.7 | | Gen. Mdse. | Men's, Women's Clothing |
| Suits and Trousers..... | 13.3 | 0.0 | | 12.1 | 0.0 | | Gen. Mdse. | Men's cloth. |
| Shirts..... | 2.9 | 0.0 | | 3.4 | 0.0 | | Gen. Mdse. | Men's cloth. |
| Special Sportswear..... | .3 | .4 | | .5 | .6 | | Gen. Mdse. | Men's, Women's Clothing |
| Underwear, Nightwear and Hose..... | 8.9 | 13.9 | | 7.8 | 12.7 | | Gen. Mdse. | Men's, Women's Clothing |
| Footwear..... | 9.5 | 9.6 | | 8.1 | 8.7 | | Gen. Mdse. | Men's clothing, Shoes Women's clothing, Shoes |
| Clothing Accessories, Including flowers.... | 2.2 | 1.7 | | 2.8 | 2.4 | | Gen. Mdse. | Men's, Women's Clothing Florist |
| Articles of Outer Clothing | 0.0 | 9.4 | | 0.0 | 10.8 | | Gen. Mdse. | Women's Clothing |
| Shoeshines and Repairs | | | 3.0 | | | 2.9 | Shoe repair or Tailor-pickup** | Shoe repair |
| Jewelry..... | | | .4 | | | .2 | Drugstore | Jewelry and Gift Shop |
| Cleaning and Pressing.. | | | 2.8 | | | 4.1 | Tailor-pickup** | Cleaning and Tailor |
| Home Sewing Materials | | | 1.2 | | | 1.3 | Gen. Mdse. | Gen. Mdse. |

TABLE II—Continued.—ITEMS AS PERCENTAGES OF MAJOR CATEGORIES OF EXPENDITURE AND THE FACILITIES AT WHICH IT IS ESTIMATED THE ITEMS WILL BE SPENT

| MAJOR CATEGORY AND ITEM EXPENDITURE | *Percent of Major Category, Annual Income of | | Facilities at which it is Estimated Items will be Spent | |
|-------------------------------------|--|---------|---|-------------------------------------|
| | \$2,000 | \$3,000 | Neighborhood Shopping Center | Community Shopping Center |
| AUTOMOBILE | | | | |
| Purchase..... | 22.3 | 23.8 | ..... | Auto Sales. |
| Operation..... | | | | |
| Gas and Oil..... | 38.0 | 42.7 | Garage and Service Stations | Gen. Mdse. Garage and Ser. Stations |
| Tires and Tubes..... | 4.5 | 4.8 | Garage and Ser. Stations | Gen. Mdse. Ser. Stations |
| Repairs, Replacements, Services... | 5.6 | 4.9 | Garage and Ser. Stations | Gen. Mdse. Ser. Stations |
| Accessories..... | 0.0 | .7 | Garage and Ser. Stations | Gen. Mdse. Ser. Stations |
| Garage Rent, Parking..... | 9.8 | 5.0 | | |
| Other, Insurance, etc..... | 19.8 | 18.1 | | |
| OTHER TRANSPORTATION | | | | |
| No significant breakdown | | | | |
| PERSONAL CARE | | | | |
| Personal Service | | | | |
| Husband..... | 18.9 | 19.9 | Barber | Barber |
| Wife..... | 11.7 | 10.5 | Beauty Shop | Beauty Shop |
| Other family members..... | 17.9 | 19.4 | Barber, Beauty Shop | Barber, Beauty Shop |
| Toilet Articles & Preparations..... | 51.5 | 50.2 | Gen. Mdse. Drugstore | Gen. Mdse. Drugstore |
| MEDICAL CARE | | | | |
| Medical Services | | | | |
| Physician..... | 45.5 | 37.4 | Physician | Physician |
| Dentist..... | 19.0 | 30.7 | Dentist | Dentist |
| Oculist..... | 1.1 | .5 | ..... | Oculist |
| Other Specialists..... | 0.0 | 4.9 | ..... | Specialist |
| Hospital, tests..... | 0.0 | 1.1 | ..... | ..... |
| Medical Equipment | | | | |
| Medicine and Drugs..... | 22.3 | 14.4 | Drugstore | Drugstore |
| Eyeglasses..... | 3.4 | 4.6 | Drugstore | Gen. Mdse. Drugstore, Oculist. |
| Appliances and Supplies..... | 1.3 | .4 | Drugstore | Drugstore |
| Other, Insurance and Other | | | | |
| Medical Care..... | 7.4 | 6.0 | | |

SHOPPING CENTERS IN URBAN REDEVELOPMENT

145

TABLE II—Continued.—ITEMS AS PERCENTAGES OF MAJOR CATEGORIES OF EXPENDITURE AND THE FACILITIES AT WHICH IT IS ESTIMATED THE ITEMS WILL BE SPENT

| MAJOR CATEGORY AND ITEM EXPENDITURE | *Percent of Major Category, Annual Income of | | Facilities at which it is Estimated Items will be Spent | |
|--|--|---------|---|--|
| | \$2,000 | \$3,000 | Neighborhood Shopping Center | Community Shopping Center |
| RECREATION | | | | |
| Movies..... | 63.7 | 38.8 | Schools, neighborhood house and Churches | Movie Theater |
| Other Paid Admissions..... | 1.7 | 6.6 | | Part in Pool-room |
| Games or Sports Equipment..... | 1.3 | 10.3 | Gen. Mdse. | Gen. Mdse. |
| Radio Purchase..... | 1.3 | 6.1 | Gen. Mdse. | Gen. Mdse. |
| Radio Maintenance..... | 3.3 | 1.7 | Gen. Mdse. | Gen. Mdse. |
| Music Instruments and Sheet Music .. | .4 | 17.6 | Gen. Mdse. | Gen. Mdse. |
| Photographic Equipment..... | 1.3 | 1.7 | Drugstore | Drugstore |
| Toys..... | 2.1 | 3.2 | Gen. Mdse. | Drugstore, Gen. Mdse. |
| Pets..... | 6.2 | 1.9 | Gen. Mdse. | Gen. Mdse. |
| Other Entertaining, Social and Recreational Clubs..... | 18.7 | 12.1 | ..... | ..... |
| TOBACCO | | | | |
| Cigarettes..... | 82.8 | 81.3 | Drugstore, Supermarket | Drugstore, Supermarket |
| Other Tobacco and Supplies..... | 17.2 | 18.7 | Supermarket Drugstore | Supermarket Drugstore |
| READING | | | | |
| Newspapers..... | 92.7 | 90.1 | Drugstore | Drugstore, Newsstands, Bookstore, Poolroom |
| Magazines..... | 7.3 | 8.4 | Drugstore | Drugstore, Bookstore |
| Books | | | | |
| Purchases..... | 7.0 | 1.0 | Drugstore | Drugstore, Bookstore |
| Library Fees and Rentals..... | 0.0 | .5 | ..... | ..... |
| FORMAL EDUCATION | | | | |
| Books and Supplies..... | 33.6 | 23.8 | Gen. Mdse. | Some in Bookstore, Gen. Merchandise |
| Special Lessons..... | 0.0 | 6.6 | ..... | ..... |
| Tuition..... | 66.4 | 69.6 | ..... | ..... |
| CONTRIBUTIONS AND PERSONAL TAXES | | | | |
| Personal Gifts..... | 31.8 | 27.5 | Drugstore, Gen. Mdse. | Jewelry and Gift Shop |
| Other..... | 68.2 | 72.5 | | |

* These percentages are based upon data from U. S. Bureau of Labor Statistics, Volumes I thru VII of Bulletin No. 648, "Family Expenditures in Selected Cities, 1935-36." In this shopping center study, the percentages are applied to 1946 income equivalents of the 1935-36 incomes.

** Part of this expenditure probably would involve laundry, shoe repairing or dry cleaning, as the case may be, sent by the neighborhood facility proprietor to the respective facility in the community shopping center.

fares. This condition will restrict pedestrian shopper movement, so that daily shopping needs will necessarily be confined to neighborhood centers. Ready accessibility of the central business center and community shopping facilities by public conveyance will make them available for other than daily requirements. With these qualifications in mind, and from observations of shopping habits in a near-in Chicago area, the percentages for expenditures in the neighborhood, community and other shopping centers were estimated as given in Table I.

Step 7: Apply the major category and shopping center estimate percentages to the total annual income probable in the area after redevelopment. As an example of the application of this step, the total annual income of \$5,714,000 for the \$2,000 neighborhood is used. As shown in Table I, the major category percentages for "Food" are noted as 40.7 per cent of the total, and of that 40.7 per cent, half, or 50 per cent, is spent in the neighborhood, 15 per cent in the community, and 35 per cent elsewhere. In terms of dollars 40.7 per cent of \$5,714,000 amounts to \$2,325,000 when rounded to the nearest hundred, of which \$1,162,500 would be spent in the neighborhood, \$348,750 in the community shopping center, and \$813,750 elsewhere.

Step 8: Apply item expenditure percentages (Table II) to the major category dollar figures (Table I). As an example, the \$2,325,000 food category expenditure for the \$2,000 neighborhoods secured through step 7, reduced by the 50 per cent estimation for neighborhood shopping to \$1,162,500, breaks down by item expenditure percentages listed in Table II as follows:

| Item Expenditures | Portion of Major Category Percentage | Dollars |
|-------------------------------|--------------------------------------|-------------|
| Food at home | 93.2 | \$1,083,450 |
| Meals at work | 4.4 | 51,150 |
| Meals at school | 1.1 | 12,787 |
| Ice cream and candy | .2 | 2,325 |

| | | |
|--|-------|-------------|
| Soft drinks, beer and alcoholic drinks | .7 | 8,138 |
| Other meals | .4 | 4,650 |
| | 100.0 | \$1,162,500 |

The proper percentages of the \$1,162,500 give the dollar amounts tabulated above, and fully listed in Table II, for allocation to the various facilities.

Step 9: Allocate item expenditures to facilities. Determination of the probable facilities demands familiarity with retail establishments—their operation, expenses, and problems—as well as the retail pattern for the income group being considered. Table VI of Shopping Center Facility Standards and the accompanying source text give background data for this step and for later steps in the calculation. Perusal of sources for the table will show that the neighborhood and community shopping center types referred to in this study are established units in the retail pattern, despite the variation in terminology. It will also be noted that rather consistent facility groupings are involved in the various shopping centers. (9, 10, 11, 12, 14, 15, and 31)

In some cases allocation of item expenditures to the various facilities may mean that items will be split between two, or as the case may be, three separate facilities. This procedure necessitates intimate knowledge of consumer habits and, as noted before, of the retail pattern. The desirability of competitive operations to the consumer also may well be taken into account.

An example of such allocation of item expenditures with respect to food items will make this step clear. Opposite the food item expenditures of Table II are facility notations as follows: "Food at home—the Supermarket." But when this item expenditure is allocated to facilities of the community shopping center, it might well be allocated, as noted in Table II, to the supermarket, the

grocery, the meat market, and the bakery. The latter allocations thus would be apportioned to the various facilities on the basis of judgment and with due respect to local shopping habits observable in areas of similar economic status.

Step 10: Summarize item expenditures allocated to the various facilities. To take the case of expenditures for the \$2,000 neighborhood shopping center as an example, all of the various expenditures allocated to the drugstore, supermarket, etc., are totaled. For the supermarkets, specifically, the total was approximately \$1,127,700, and for the drugstores, \$134,900. (See Table III.)

Step 11: Check summaries for the facilities with respect to gross annual receipts, reallocate if necessary, and determine number of each type of facility. In certain cases, of the totals secured in Step 10 for some facilities, it is

readily apparent that enough funds are available for one, two, or more separate drugstores, supermarkets, or other facilities. Total expenditures which on first thought might be considered as spent at a particular facility, may, upon notation of the range of total gross annual receipts required for successful operation, be found too small. In such a case check of allocation may reveal that: (1) other expenditures may take place in the particular facility, or that (2) it will be impossible to maintain a successful facility of that type, and the expenditures considered for that facility then would be reallocated to other facilities.

Returning to the example of the \$2,000 neighborhood, after original allocation it is not found necessary to reallocate sums. Upon check with the range of total gross annual receipts in Table VI, it becomes evident that income of \$1,127,700 would

TABLE III—NEIGHBORHOOD SHOPPING CENTER FACILITY AND AREA ESTIMATE
(\$2,200 Average Annual Family Income—2,857 Families; Total Population of 10,000 Persons)

| Facility | No. | Estimated Gross Annual Receipts | Area In Square Ft. Per Store | Total Area For Facility | Rent As % Of Gross Annual Receipts | Annual Rents |
|---|-----|---------------------------------------|------------------------------------|-------------------------------|--|-----------------|
| Supermarket..... | 2 | 1,127,700 | 6,000 | 12,000 | 1½ | 16,900 |
| Drugstore with Lunch Counter and Packaged Liquor..... | 1 | 134,900 | 3,000 | 3,000 | 4 | 5,400 |
| General Merchandise or Variety..... | 1 | 153,100 | 3,500 | 3,500 | 3 | 4,600 |
| Tailor, Pickup for Dry Cleaning, Shoe Repair and Laundry | 1 | 30,500 | 2,500 | 2,500 | 8 | 2,400 |
| Service Station and Repair Garage..... | 1 | 22,000 | 4,000 | 4,000 | 6 | 1,300 |
| Barber..... | 2 | 17,400 | 900 | 1,800 | 10 | 1,700 |
| Beauty Shop..... | 1 | 17,000 | 900 | 900 | 9 | 1,500 |
| Physician..... | 2 | 31,200 | 450 | 900 | 10 | 3,100 |
| Dentist..... | 1 | 13,000 | 450 | 450 | 10 | 1,300 |
| TOTALS..... | | 1,546,800 | | 29,050 | | 38,020 |

Area Summary

Shopping Center Facilities..... .67 acres
Off-street Parking..... .67 acres
Total (without provision for expansion)..... 1.34 acres
or .13 acres per 1,000 population

support two supermarkets, and that income of \$134,900 would support one drugstore, in this particular income neighborhood, as shown in Table III.

Step 12: Estimate areas for individual facilities. The areas for individual facilities, as determined on the basis of standards shown in Table VI, are listed in Tables III, IV, V.

Step 13: Estimate rentals for individual facilities. Current real estate practice, somewhat variable in all urban areas, is the guide for this step. Percentage leases, by which rentals are determined as a proportion of gross receipts, are now considered advantageous to both operator and lessor, and rentals on this basis are herein noted. It is probable that the percentages shown in this study, since they are based upon current practice in areas usually over-supplied with retail facilities, might be somewhat higher for

facilities located in redevelopment areas assuring a stable market through land use control. Rental standards compiled for the Chicago problem area as given in Table VI form the basis for rental figures in Tables III, IV, and V.

Step 14: Check areas and rentals with gross annual receipts. Rental dollars per square foot should not vary extremely, and therefore should be checked with the area of the facility and the volume of business. Only where a facility is considered absolutely essential to the rounding out of shopping center services to the residents should one with an unduly low rental rate per square foot of area be expected to remain. The mean or optimum rate would vary considerably, depending upon the assurance of market and the capital investment involved.

Step 15: Compute total area needed for all facilities. Tables III, IV, and V give

TABLE IV—NEIGHBORHOOD SHOPPING CENTER FACILITY AND AREA ESTIMATE
(3,000 Average Annual Family Income—2857 Families; Total Population of 10,000 Persons)

| Facility | No. | Estimated Gross Annual Receipts | Area In Square Ft. Per Store | Total Area For Facility | Rent As % Of Gross Annual Receipts | Annual Rents |
|--|-----|---------------------------------------|------------------------------------|-------------------------------|--|-----------------|
| Supermarket..... | 2 | 1,106,100 | 6,000 | 12,000 | 2 | 22,100 |
| Grocery..... | 1 | 250,000 | 3,500 | 3,500 | 4 | 10,000 |
| Drugstore with Lunch Counter and Packaged Liquor..... | 1 | 172,300 | 3,000 | 3,000 | 4 | 6,900 |
| General Mdse. or Variety..... | 1 | 292,900 | 5,000 | 5,000 | 4 | 11,700 |
| Laundry..... | 1 | 32,100 | 2,500 | 2,500 | 6 | 1,900 |
| Tailor, Pickup for Dry Cleaning | 1 | 16,000 | 700 | 700 | 8 | 1,300 |
| Shoe Repair..... | 1 | 11,300 | 500 | 500 | 9 | 1,000 |
| Service Station & Repair Garage | 1 | 31,400 | 4,000 | 4,000 | 6 | 1,900 |
| Barber..... | 2 | 34,300 | 900 | 1,800 | 10 | 3,400 |
| Beauty Shop..... | 2 | 29,400 | 600 | 1,200 | 9 | 2,600 |
| Physician..... | 2 | 29,500 | 450 | 900 | 10 | 2,900 |
| Dentist..... | 2 | 24,200 | 450 | 900 | 10 | 2,400 |
| TOTALS..... | | 2,029,500 | | 36,000 | | 68,100 |

Area Summary

| | |
|---|------------|
| Shopping Center Facilities | .83 acres |
| Off-street Parking | .83 acres |
| Total (without provision for expansion) | 1.66 acres |
| or, .17 acres per 1,000 population | |

TABLE V—COMMUNITY SHOPPING CENTER FACILITY AND AREA ESTIMATE

(For a Community of Seven Neighborhoods or 70,000 Total Population)

Provision is made for community shopping for all neighborhoods, four of which have a \$2000 average annual family income and three, an average annual family income of \$3000. One of the \$2000 income neighborhoods would also use the Community Shopping Center for the usual neighborhood shopping. 3.5 persons compose the average family.

| Facility | No. | Estimated Gross Annual Receipts | Area In Square Ft. Per Store | Total Area For Facility | Rent As % Of Gross Annual Receipts | Annual Rents |
|---|-----|---------------------------------------|------------------------------------|-------------------------------|--|-----------------|
| FOOD | | | | | | |
| Supermarket..... | 3 | 2,991,100 | 8,000 | 24,000 | 1½ | 44,900 |
| Grocery..... | 2 | 310,000 | 3,000 | 6,000 | 4 | 12,400 |
| Meat Market..... | 2 | 105,000 | 2,000 | 4,000 | 5 | 5,300 |
| Bakery..... | 3 | 310,000 | 2,500 | 7,500 | 6 | 18,600 |
| Drugstore, Lunch Counter. | 2 | 497,000 | 3,000 | 6,000 | 4 | 19,900 |
| Restaurant..... | 1 | 34,300 | 2,000 | 2,000 | 6 | 2,100 |
| Tavern with Pack. Liquor | 1 | 39,800 | 2,000 | 2,000 | 7 | 2,800 |
| EQUIPMENT AND MAINTENANCE | | | | | | |
| General Mdse. and Variety | 1 | 691,500 | 8,000 | 8,000* | 6 | 41,500 |
| Laundry..... | 1 | 55,200 | 3,000 | 3,000 | 6 | 3,300 |
| Florist..... | 1 | 22,300 | 1,000 | 1,000 | 8 | 1,800 |
| Furniture..... | 2 | 206,600 | 4,000 | 8,000 | 8 | 16,500 |
| Appliance, Electrical and Radio..... | 2 | 70,400 | 2,000 | 4,000 | 9 | 6,300 |
| CLOTHING | | | | | | |
| Men's Clothing..... | 3 | 547,100 | 3,000 | 9,000 | 6 | 32,800 |
| Women's Clothing..... | 3 | 540,600 | 3,000 | 9,000 | 7 | 37,800 |
| Shoe Store..... | 2 | 130,500 | 2,500 | 5,000 | 7 | 9,100 |
| Jewelry and Gift Shop.... | 2 | 112,900 | 1,000 | 2,000 | 8 | 9,000 |
| Dry Cleaning and Tailor | 2 | 47,500 | 2,000 | 4,000 | 8 | 3,800 |
| Shoe Repair..... | 2 | 42,300 | 1,000 | 2,000 | 9 | 3,800 |
| AUTOMOTIVE | | | | | | |
| Service Station and Repair Garage..... | 2 | 196,100 | 8,000 | 16,000 | 6 | 11,800 |
| Auto Sales..... | 1 | 100,100 | 5,000 | 5,000 | 2 | 2,000 |
| PERSONAL, MED. CARE | | | | | | |
| Barber..... | 3 | 87,600 | 1,000 | 3,000 | 10 | 8,800 |
| Beauty Shop..... | 3 | 73,500 | 900 | 2,700 | 9 | 6,600 |
| Physician..... | 24 | 479,800 | 450 | 10,800** | 10 | 48,000 |
| Dentist..... | 20 | 280,600 | 450 | 9,000** | 10 | 28,000 |
| Oculist..... | 2 | 19,000 | 450 | 900** | 8 | 1,500 |
| Specialist..... | 2 | 29,100 | 450 | 900** | 10 | 2,900 |
| RECREATION | | | | | | |
| Movie Theater..... | 2 | 270,000 | 9,000 | 18,000 | 15 | 40,500 |
| Poolroom and Newsstand.. | 1 | 61,400 | 2,500 | 2,500 | 9 | 5,500 |
| Bookstore..... | 1 | 63,200 | 2,000 | 2,000 | 9 | 5,700 |
| OTHER | | | | | | |
| Bank..... | 1 | | 3,500 | 3,500 | 1½ | |
| SHOPPING CENTER TOTALS | | 8,579,000 | | 155,200 | | 433,000 |
| Fuel Building Supply Yard | | 135,100 | | | | |
| Newsstands..... | | 29,400 | | | | |
| OTHER FACILITIES TOTAL | | 164,500 | | | | |

Area Summary

| | |
|--|------------|
| Shopping Center Facilities..... | 3.56 acres |
| Off-street Parking..... | 3.56 acres |
| Total (without provision for expansion)..... | 7.12 acres |
| or .10 acres per 1,000 population | |

* Only that half of this facility on the first floor is included in the shopping center area total.

** These offices would be on upper floors of the office building and are not included in the shopping center total area.

TABLE VI—SHOPPING CENTER FACILITY STANDARDS

(See following text for sources)

N—Data applies to neighborhood facilities

C—Data applies to community facilities

| Facility | Dimensions Variable With Design | Area In Square Ft. | Approximate Gross Annual Receipts | Rent as % of Receipts |
|--|---------------------------------------|-----------------------|---|--------------------------|
| FOOD | | | | |
| Supermarket.....N | 60x100 | 6000 | \$500,000 | |
| | 80x100 | 8000 | 1,000,000 | 1½-2% |
| Grocery.....C | 30-35x100 | 3000-3500 | 100,000-250,000 | 4-6 |
| Meat Market..... | 20x100 | 2000 | 50,000-100,000 | 3-5 |
| Bakery..... | 25x100 | 2500 | 50,000-100,000 | 6-7 |
| Drugstore with lunch counter and with or without packaged liquor | 30-35x100 | 3000-3500 | 100,000-200,000 (200,000 preferable) | 3-5 |
| Restaurant..... | 20x100 | 2000 | 25,000-100,000 | 5-7 |
| Tavern with packaged liquor..... | 20x100 | 2000 | 20,000- 35,000 | 6-8 |
| EQUIPMENT, MAINTENANCE | | | | |
| Hardware..... | 30-50x100 | 3000-5000 | 100,000-150,000 | 8-10 |
| General Merchandise.....N | 35-50x100 | 3500-5000 | 100,000— | 3-6 |
| | 40-75x100 | 8000-15,000 | 500,000 (preferable) | |
| | plus full basement | | | |
| Laundry..... | 25-30x100 | 2500-3000 | 30,000-125,000 | 5-7 |
| Laundrette..... | 20x50-60 | 1000-1200 | 25,000 | 8-10 |
| Florist..... | 20x50-60 | 1000-1200 | 25,000-50,000 | 6-9 |
| Variety..... | 35x100 | 3500 | 100,000-200,000 | 4-6 |
| Furniture..... | 40x100 | 4000 | 100,000-150,000 | 8 |
| | and full basement | | | |
| Appliance, electrical and radio..... | 20x100 | 2000 | 30,000-50,000 | 8-10 |
| CLOTHING | | | | |
| Men's clothing..... | 30x100 | 3000 | 100,000 (preferable) —200,000 | 5-7 |
| Women's clothing..... | 30x100 | 3000 | 150,000 (preferable) —300,000 | 7-9 |
| Shoe store..... | 25x100 | 2500 | 50,000 | 6-8 |
| Jewelry and Gift Shop..... | 20x 50 | 1000 | 25,000- 50,000 | 6-9 |
| Dry cleaning..... | 20x100 | 2000 | 25,000- 40,000 | 7-9 |
| Tailor and pickup store for dry cleaning, laun- dry and shoe repair..... | 20x50-75 | 1000-1500 | 15,000-40,000 | 7-9 |
| Shoe repair..... | 20x50 | 500-1000 | 10,000-20,000 | 8-10 |
| AUTOMOTIVE | | | | |
| Service station and Repair garage.....N | 40x100 | 4000 | 25,000-100,000 (100,000 preferable) | 3-6 |
| | 80x100 | 8000 | 50,000-300,000 | |
| Auto Sales.....C | 50x100 | 5000 | 100,000-150,000 | 1½-2 |

TABLE VI—*Continued*—SHOPPING CENTER FACILITY STANDARDS
(See following text for sources)

N—Data applies to neighborhood facilities

C—Data applies to community facilities

| Facility | Dimensions Variable With Design | Area In Square Ft. | Approximate Gross Annual Receipts | Rent as % of Receipts |
|----------------------------|---------------------------------------|------------------------------|--------------------------------------|--------------------------|
| PERSONAL, MED. CARE | | | | |
| Barber..... | 20x40-50 | 800-1000 | 9,000-25,000 | 9-11 |
| Beauty Shop..... | 20x30-45 | 600-900 | 15,000-25,000 | 8-10 |
| Physician..... | 15x30 | 450 | N15,000 C 20,000 | 9-10 |
| Dentist..... | 15x30 | 450 | 14,000 | 9-10 |
| Oculist..... | 15x30 | 450 | 10,000 | 8-9 |
| Specialist..... | 15x30 | 450 | 12,000 | 9-10 |
| RECREATION | | | | |
| Movie Theater..... | 70 (average width) x135 | 9000-10,000 750-800 seats | 60,000 minimum | 14-16 |
| Poolroom and newsstand .. | 25x100 | 2500 | 30,000-50,000 | 8-10 |
| Bookstore..... | 40x50 | 2000 | 50,000 | 8-10 |
| OTHER | | | | |
| Bank..... | 35x100 | 3500 | | 1-1½ |
| Other offices..... | 15x30 | 450 | | 9-10 |

ground floor area totals for the \$2,000 and \$3,000 neighborhoods and the community. These were attained with consideration of second story locations for some offices and separation of automobile service stations from the centers proper.

Step 16: Allow parking area in relation to total facility area. Parking areas in both neighborhood and community shopping centers were provided for on the basis of one square foot for each square foot of shopping requirements. This one-to-one ratio is in line with requirements in near-in residential areas where a rather small percentage of the population will have need for automobiles. The income level of the families in the area also contributes to the low amount of parking space allowed. A higher ratio undoubtedly would prevail in areas of higher income or those farther removed from the central urban area. (31)

Summary of Chicago Estimation

The \$2,000-income neighborhood would be spending \$1,546,800 a year within its own shopping center, for which it would require eight stores, three offices, and one service station. The \$3,000-income neighborhood within its own shopping center would spend approximately \$2,029,500 a year, and require twelve stores, four offices and one service station. The ground floor area for the neighborhood shopping centers, in line with the estimated variation in average incomes and consequent needs, would occupy 1.34 and 1.66 acres respectively with one square foot of parking provided for each square foot of shopping.

The community shopping center would collect receipts totaling \$8,579,000 from the seven neighborhoods, and would need as facilities two theaters, two automobile service stations, forty-five stores, and forty-eight offices. These facilities would

occupy 7.12 acres of ground floor area and also have parking area on a 1:1 ratio.

The estimates arrived at represent minimum facility and area requirements. They differ considerably from conditions in the existing retail pattern of the area under study. They also differ from results of other studies, in having fewer facilities, and particularly in respect to those dealing with suburban shopping centers (1, 2, 6, 30, 31, and 38). In this study, estimates are aimed to secure optimum conditions for both management and consumer, and thus to reduce materially the usual rate of business failures. In final designs, provision should be made for possible expansion of some facilities and addition of others as required. The community shopping center in particular could contain such added facilities as a post office sub-station and a bank or even a child nursery.

In no sense are the results of estimation for the particular Chicago area to be considered applicable to other areas. They might be useful in a comparative sense, but the individuality of the data differs considerably from area to area, city to city and in the various income groups. The method of this study, however, should be easily and directly applicable.

Location

The failures of haphazardly-grown shopping districts and the factors contributing to the success of those districts which flourish are of major importance in guiding the location of shopping centers for areas undergoing redevelopment. Three conditions obviously are to be met:

- (1) The shopping centers must be provided with adequate facilities to transport goods from wholesale sources.
- (2) They must be near purchasing power or transportation must be available to bring purchasing power to them.

- (3) They should be near facilities serving the social life of the community (33, 34, 36, 37, 39, and 40).

In the Chicago area under study, the proposed major thoroughfare and expressway system will give access to ready transportation of goods from outlying or urban markets to the neighborhood shopping centers.

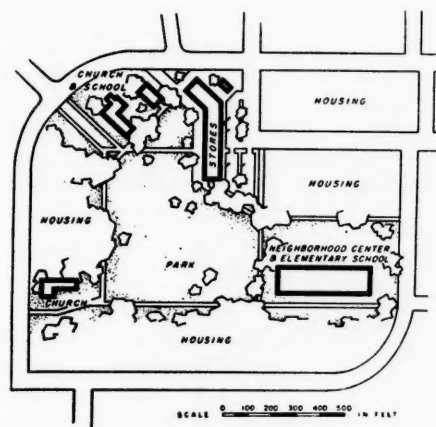
The shopping centers as planned for this redevelopment area are located in the central sections of the neighborhoods and of the community, so that the greatest amount of purchasing power can be drawn to them. Although provision is made for the motorist, the shopping centers are geared primarily for the pedestrian or the purchaser visiting them by public conveyance.

They are planned near the social gathering places for the redeveloped area to lend additional emphasis to the social focal point of the neighborhood and to facilitate social cohesion.

Plans suggested for shopping center locations in the Chicago problem areas are shown in Figures A, B, and C.

Neighborhood Location. The neighborhood store cluster ordinarily faces a busy street, on the edge of the residential area to be served. Such a location supposedly allows the family driver to pick up groceries on the way home from work. In areas lying near-in to the central part of the city, however, the rate of car ownership is low, and shoppers are mainly pedestrians. Thus the reason for an "edge location" disappears, and a location more accessible to all residents appears logical.

In any neighborhood there will be some institutions, such as the elementary school, which are visited daily by members of many families. It is therefore logical, as shown in Figure B, that both school and shopping center be given a central location, readily reached from all



NEIGHBORHOOD SHOPPING CENTER
AND RELATION TO OTHER NEIGHBORHOOD FACILITIES

FIGURE B

sections of the neighborhood. On or about the landscaped park-playground, these facilities, as well as the other buildings housing activities of neighborhood interest, find a convenient setting. If such a green is located in a large superblock, as shown in the figure, not only does a considerable portion of housing have a spacious, park-like setting, but all residents of the neighborhood have easy access to all facilities, either via the main street or through the park.

Community Location. The traditional, unplanned community shopping center takes a street-straddle form in most cases. It grows in a haphazard way around a point of intersecting lines of public transportation which brings together a concentration of shoppers. The consequent result is to pyramid buildings and to focus vehicular and pedestrian movement in a manner which increases traffic hazards for shoppers and creates traffic congestion—all factors which have contributed to decentralization of business in our large urban centers.

These drawbacks are to be avoided when an area is redeveloped. In proposals for the redevelopment area under study, major thoroughfares pass through the community of neighborhoods as shown in Figure A. The great width of these thoroughfares—180 to 190 feet—and their high speed traffic will make pedestrian crossing extremely difficult, if not impossible. Though bridges or tunnels might be constructed to make such crossing easy and safe, it is doubtful whether the pedestrian would adjust to long, circuitous routes of that type. The logical location for shopping centers in the redeveloped areas therefore requires abandonment of the traditional street-straddle arrangement around major street intersections.

The community shopping center, like the neighborhood shopping centers, should be centrally located. It needs to be near, but not necessarily in immediate conjunction with, other buildings housing activities of community-wide interest. Further attention will thereby be focused upon the common community interests and center permitting activities conditioning social cohesion. Since these other buildings likewise require central location (35, 38, 40, 41, and 42), a location adjacent to the community park-playfield provides the natural center for them. They can be attractively and conveniently housed on the periphery of the playfield as shown in the alternative proposals presented in Figures C and D. The community high school, social center, and library branch could be combined into one structure, with the high school playfield adjacent. A building would also probably be required for police, fire department, and possibly other governmental activities. A community health center or hospital likewise might be considered suitable near this central meeting place.

The elementary school, churches, and other public buildings related to the adjacent neighborhood could also be located on the periphery of the community park, but in closer conjunction to that neighborhood than would be the community buildings.

Near the community shopping center, the placing of tower apartments might be considered feasible. This would make a greater amount of purchasing power readily available to the shopping center and further foster the center atmosphere. Other buildings might be needed for public or semi-public activities, but it is probably preferable to arrange for the multiple use of buildings rather than to allow encroachment upon any other parkland if this community area is to fulfill its function.

Landscape treatment can be carefully given to keep occupants of the residential structures proposed on the park periphery

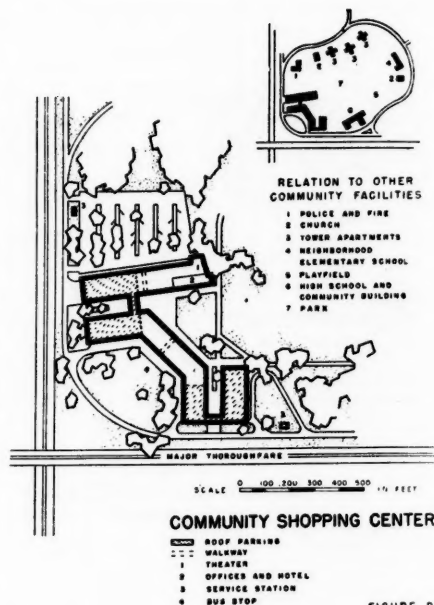


FIGURE D

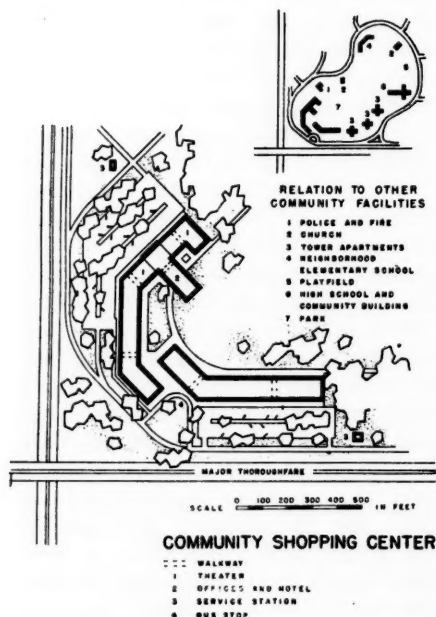


FIGURE C

from overusing the park. The tower apartment dwellers should have restricted access, and the schools and their adjacent play areas should be subject to certain controls if indiscriminate use of the park is to be prevented. The park-like character of a community green can be preserved despite peripheral use by other activities. In fact, a careful disposition of these buildings and treatment of their architecture and immediate surroundings can greatly enhance this broad green landscape.

The broad area relationships discussed above are portrayed in Figures A, C, and D. In Figure A, the relation of the community shopping center to the adjacent neighborhood and major thoroughfares is emphasized. In actual practice, one of the major thoroughfares shown immediately adjacent to the shopping center in Figure A might be eliminated if the city's transportation plan would permit. Such a move would enlarge the purchasing power available to the center.

Design

Shopping centers require location with relation to the living areas of the prospective users. Their design needs to insure that, once built, they can function successfully in an economic and social sense, and prove more than a merely tolerable factor in their particular social unit.

The individual retail facility attracts the purchasers and, with proper grouping, these facilities exert a cumulative pull. The "center attraction" then takes hold to draw the consumer dollar. This attraction can be greatly increased through harmonious and careful architectural treatment of facilities. The individual facilities may have special architectural requirements which require attention. At the same time that individual requirements are met, however, the architectural treatment of each facility should be subordinated to the whole if the center attraction is to prevail. Modular construction will allow architectural unity without monotony, flexibility in adjustment of interior walls, and ready building maintenance under either single or group ownership. Examples of such unified treatment of suburban centers are of fairly recent date, but they have already proved themselves (31, 45, 46, 47, 49, 50, 52, and 53). Along with increasing emphasis on the harmonious physical treatment of shopping center facilities they have emphasized the social implication of the design (33, 38, and 51).

The location of the particular shopping centers for the areas under study favors the full design possibilities of the centers. All portions of the design reflect the center idea and the fundamental principle that shopping centers exist primarily to facilitate consumer purchasing. The following ten points require special checking if the centers are to be designed to fulfill this function:

1. Vehicular access.
2. Pedestrian access not restricted by roadways or parking areas.
3. Servicing of facilities.
4. Parking areas located for use by center shoppers and employees, and at odd hours by users of other facilities.
5. Public conveyance terminal in community center.
6. Separation of movement to, from shopper movement within the centers.
7. Tot lots and nurseries for supervised child play.
8. Extension of center buildings into park area and introduction of simple landscaping into dining terraces and courtyards.
9. Grouping of facilities to eliminate or reduce "dead" business locations; and of theaters and other amusement facilities to form an "evening area."
10. Possibility of expansion.

The designs included in this study—Figures B, C, and D—are aimed to illustrate the broad relationships. Individual facilities, therefore, are not assigned exact locations as suggested in Point 9 in the above list. Theaters are considered in arranging an evening amusement center, however, and parking areas and covered passageways are provided to allow ready access to all sections. "Dead" business sections, it is anticipated, will be reduced to a minimum with the careful relating of facilities (2, 12, 23, 24, 30, and 31).

With concern for the preponderant group of center users which are pedestrians, vehicular and pedestrian traffic has been definitely separated in the design, and the parking facilities provided, though convenient, are limited. The expansion of all of the centers is possible near parking areas where the centers will encroach upon park areas to a minimum extent.

The design of centers in an actual redevelopment program will be limited, of course, by existing improvements which cannot be altered and by the investment considered reasonable. To give full

scope and emphasis to the basic relationships necessary if centers are to occupy a dominant role, however, the centers illustrated in this study were designed with a minimum of restrictions.

Neighborhood Design. The design of a neighborhood shopping center shown in Figure B involves use of the estimate of facilities for a \$2,000-average-family-income neighborhood, as given in Table III. In this design, the park-playground is the central feature of the neighborhood. The park area extends finger-like to the main artery of the neighborhood. Shoppers can reach the shopping facilities via that artery, or by use of the park walks leading also to the playground, elementary school and other public and semi-public buildings of neighborhood-wide interest.

The shopping center faces an extension of the park proper, and beyond that park, a church-parochial school group. In a portion of that park extension, a tot lot for children of shoppers might conveniently be located. Parking areas adjoining the center on the street side would also function for store servicing and be convenient to the service station-garage.

Community Design. The designs for community shopping centers—Figures C and D—are based upon the estimated needs presented in Table V. The major differences in the two designs are: (1) greater penetration of park into the shopping center in Figure C, (2) roof parking in Figure D, and (3) greater use of the shopping-lane-idea in Figure D.

People of the community who live outside the neighborhood containing the community shopping center will reach the center by private vehicle, public conveyance, or by walking. If traffic is to move unhindered, vehicular access will probably necessitate grade separation underpasses beneath the major thoroughfares. Such an underpass would feed

into the local road adjacent to the center. An alternate scheme would move the vehicle into the fast stream of traffic on the major thoroughfare from the neighborhood, and then into the local road adjacent to the center. At any rate, the local road directly connecting the community shopping center and the neighborhood in which it is located will be required.

Pedestrians would need either over- or underpasses to cross major thoroughfares and have ready access to the center proper. These walkways would free them from traffic streams or parking areas. Plans shown in Figures C and D were evolved with consideration of such pedestrian needs. To make presentation simple, however, neither pedestrian routes nor the complicated road pattern related to grade-separated thoroughfares that may be required where graphically defined.

Both of the community shopping center designs allow dual use of parking areas for store servicing and parking. In Figure C, servicing for a few stores, is shown as taking place from a narrow access roadway. In Figure D, through the use of ramps and bridges, roof parking is provided on part of the single story structures. In the latter design, parking necessitates considerable servicing from the "bus stop" roadway and a separate-access roadway. Near that separate-access roadway and the adjacent service station, additional parking could be readily provided.

Bus terminals in both community center designs are centrally located, and ample allowance is made for any eventual-size loading operations. Theaters are located so as readily to condition an evening amusement area. Service stations are located so that either patrons of the shopping center or other motorists can use them without moving into the center proper. The architecture of these

buildings should be given careful consideration also, to maintain harmony in the center (44).

In both plans provision is made for a combination office and hotel building of eight stories. The structure is visualized as containing professional offices and hotel facilities for permanent residents or for guests of community residents who, in the contemporary mode, will probably inhabit dwelling units minimum to their needs. Such an eight-story structure would provide a dominant note in the otherwise horizontal one-story grouping.

Unhindered shopper movement from one facility to another, as made possible by these designs, will provide welcome relief from the hazards of most contemporary unplanned shopping districts. With the location of the center at the periphery of the park and the penetration of some structures into the green, the centers will be more than tolerable in the urban physical pattern.

Design will be a matter for close cooperation between site planner and architect if it is worked out according to the foregoing. Projected in this manner, design can, along with good location and sound estimation of needs, make the shopping center a true focus for the economic and social life of the neighborhood and community.

* * * *

Sources for Shopping Center Facility Standards

With fluctuations in price levels and change in merchandising methods, at best, these standards can serve only as a guide. Table VI pertains to conditions particular to Chicago. In some measure these standards might apply to similar problems in other urban areas. They should be carefully checked in relation to local practice, however, before being so used.

Numerous individuals connected with chain and independent store operation were consulted in preparation of Table VI. The all too scarce literature on the subject was also

investigated. And where these sources failed to give sufficient data or differed considerably, current practices were observed.

There are surprisingly consistent recommendations for some facility dimensions and areas in recent literature. The major published sources for such data which form a partial basis for Table VI include: *Business Districts in Motion*, by Joseph B. Hall (20); *Basic Elements in Station Planning*, by George J. Hemmeter (21); *The Supermarket*, by James Turnbull (25); *Commercial Facilities*, standards gathered by the U. S. National Housing Agency, Federal Public Housing Authority (28); *The Community Builders' Handbook*, issued by the Urban Land Institute (31); and *The Supermarket and the Changing Retail Structure*, by M. M. Zimmerman (32).

Numerous economic factors ordinarily make it difficult to arrive at gross annual receipt standards. In this study, however, we are assuming a given population and income in neighborhood and community. We are given a clear idea as to the probable expenditure pattern. The urban redeveloped neighborhood, to a large extent, will probably be set apart by major streets of considerable width. Such a street undoubtedly will act in a restrictive sense upon pedestrian and to a lesser extent upon vehicular movement. Thus, the neighborhood facilities will be the major shopping center for the daily needs of the population. With these circumstances in mind, the approximate gross annual receipts were determined. These standards should allow optimum conditions for management and likewise price and merchandise methods favorable to the consumer. Some optimum gross annual receipts are available in *Expenses in Retail Business*, published by the National Cash Register Company (22). Other published sources for such data or background material for computation of such data can be found in the following: Elizabeth A. Burnham, *An Analysis of Operating Data for Small Department Stores, 1938-1942* (17); Edward F. Denison, *Incomes in Selected Professions* (19); the *Small Business Manuals* issued by the U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce (26); and the *Retail Store Operating Ratio Sheets* issued by the U. S. Department of Commerce, Office of Domestic Commerce (27).

The local economic situation and the accompanying practices condition the rental figure equally as they do the gross annual

receipt figures. A general guide for rental data can be found in the publication of the National Cash Register Company, before mentioned (22), in the brochure, *Picking a Location for a Small Business*, by the New York State Department of Commerce (23); and in the more recent and complete review of the subject in *The Community Builders' Handbook* (31). Consideration of such published data and a check with local practices resulted in the column in Table VI, "Rent as Percent of Receipts." Rental figures used pertain particularly to those current in early 1947 and should be carefully checked if considered as a guide. Percentage leases are being extended in use and thus are used probably to greater extent in this study than is common in current practice.

Table VI Facility Headings

The major portion of the unpublished material which formed a substantial basis for Table VI is summarized under the following facility headings:

Supermarket. The modern supermarket aims for low margin of profit and a high rate of turnover. The self-service system, with a minimum of employees, meets these requirements. One large national chain sets a minimum of \$10,000 weekly gross sales. In a few cases, their supermarkets reach \$20,000 to \$30,000 weekly gross sales. The largest supermarkets are now planned with 100x125-150 foot dimensions.

Grocery. This type of food store may be partially planned for self-service. More frequently, however, the employees entirely serve the purchaser. Quality foods and off-hour service are the main features of the grocery. A mid-western chain operating stores of this type prefers a location 50x125 feet in dimension, but their locations range in size from 2500 to 7000 square feet.

Drugstore. Probably within each neighborhood, one currency exchange will be needed and quite logically it might be located in the drugstore. The three types of this facility and the general characteristics of each follow: (1). *Small Independent.* The store is about 25x65 feet in dimension, serves a neighborhood of about 10,000 population, and has gross annual sales of about \$60,000 to \$75,000 per year. Rents range from 5 to 6 percent of gross annual receipts. (2). *Chain Store Specializing in Quality.* The store is about 30x80

feet in dimension, grosses about \$125,000 annually, and pays a rental of 5 to 6 percent of gross annual receipts. (3). *Chain Store Specializing in Volume and Low Prices.* A large mid-western chain operating facilities of this type requires locations of about 40x80 or 90 feet in dimension. They estimate that a population of 18,000 to 20,000 people is required to give substantial receipts to one of their outlets. Gross annual receipts should approximate \$200,000. However, many of their stores gross only \$100,000 annually, while a few gross over a million dollars in a single year. Rentals vary from 3 to 4 percent of gross annual receipts.

Hardware. The modern hardware store caters primarily to home and automobile owners. A midwestern hardware chain now seeks locations in the outlying districts of a city where traffic congestion is lessened and where land is readily available for parking purposes. Their stores are now planned for dimensions of 35-50x100 feet and minimum gross annual sales of \$100,000 and preferably \$150,000, per facility.

General Merchandise or Small Department Store. Price and merchandising demands of the food purchaser gave rise to the supermarket. Most purchasers tend to favor stores of the supermarket type, in which a variety of merchandise is conveniently available under one roof. Supermarkets selling other than food items have proved successful when care is taken in selection of goods to be sold, and proper merchandising methods are maintained. The experience of Greenbelt, Maryland is valuable in this regard, as given by Victor W. Bennett in *Consumers and the Greenbelt Cooperative* (16). This type of facility, proposed for the neighborhood shopping centers, would handle some clothing, variety goods, furniture and other household equipment. It might also contain a post office sub-station. A community shopping center facility of this type probably would handle similar merchandise, but also would handle merchandise of a higher type than generally is available in other community facilities. Such a community facility could well be a branch of a large local department store.

Variety. One national chain with outlets of this type prefers locations of 40 to 50 feet by 125 feet in dimension. Gross annual receipts should attain a minimum of \$100,000 and preferably center around \$200,000.

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Adequate source material for shopping center studies is difficult to find. For that reason, all valuable material noted in preparation of this study has been listed. The numerous references in the text provide a detailed key to the use of this *Bibliography*. Some sources cover various aspects of the problem. Outstanding in this regard are those by Stein and Bauer (2), by the Urban Land Institute, Community Builders' Council (29) and (3) and as amplified in (31), and *The Final Report of the New Towns Committee* (38). Although these sources cover various aspects, they and all others used in this study have been grouped according to major content under the five headings: Estimation, Retail Pattern, Standards, Location, and Design.

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FRONTIERS OF HOUSING RESEARCH

Of interest to readers of this *journal* is the announcement of a symposium, *Frontiers of Housing Research* to be held on the campus of the University of Wisconsin in September of 1948. The meeting is jointly sponsored by the Committee on Housing Research of the Social Science Research Council and the University of Wisconsin Committee on the Regional Planning Course. The program, which has been planned by a committee under the chairmanship of Ernest M. Fisher of Columbia University, includes a discussion of such pertinent subjects as: "The Neighborhood Concept in Theory and Application," "Relationships of Technological and Social Research in Housing," "Measuring Effective Demand in the Housing Market," and "Housing Needs and Housing Standards."

Among those who have accepted the invitation to participate in this free exchange of ideas are: Gerald Breese, Secretary, Committee on Housing Research, Social Science Research Council, Washington, D. C.; Nicholas Demerath, Associate Professor of Sociology, University of North Carolina; James C. Downs, Jr., President, Real Estate Research Corporation, Chicago; Ernest M. Fisher, Director, Institute for Urban Land Use and Housing Studies, Columbia University; Benjamin Handler, Housing Economist, Washington, D. C.; Robert B. Mitchell, Executive Director, Philadelphia City Planning Commission; Richard U. Ratcliff, Professor of Land Economics, University of Wisconsin; Svend Riemer, Associate Professor of Sociology, University of Wisconsin; Arthur Weimer, Dean, School of Business, Indiana University; Elizabeth Wood, Executive Director, Chicago Housing Authority; and Coleman Woodbury, Visting Professor of Housing, University of Wisconsin.

It is to be hoped that the significant findings of this group will be made available in printed form and the program planners are considering this possibility.

The Employee Interest in Public Utility Merger and Abandonment Cases

By H. H. GOLDIN*

TRADITIONALLY, the concept of the "public interest" in utility regulation has been framed in terms of the interests of consumers, investors, the public at large, or the general competitive, enterprise system. Within the past two decades, however, the concept has been further broadened to take account, more explicitly, of the interests of employees. This development is illustrated at the federal level by a series of measures initiated in the 1930's, to protect public utility employees affected by merger or abandonment of facilities.

First applied in the railroad industry, and later extended to other utility services, merger labor-protection measures have on various occasions received the approval of Congress and the Supreme Court as equitable provisions tending to promote a stable labor force and a high level of utility service. Just as the stockholder or bondholder is entitled in a merger proceeding to a fair arrangement with respect to his monetary investment, so, it was held, the employee is entitled to recognition of his investment of years of service in the industry.

The origins and development of these measures and some of the problems encountered in their administration are traced below with reference to the transportation and communications industries.

Railroad Industry

Mergers. The Transportation Act of 1920 directed the Interstate Commerce

Commission to prepare a plan for the consolidation of railways into a limited number of competitive systems. After formulating a tentative proposal, the ICC held hearings extending over most of the decade, with railroad management in general appearing indifferent or hostile to to any grand consolidation scheme. Following the crash of 1929, however, the railroads evidenced much greater interest in mergers as a means of cutting costs.

In this same context of economic hardship, the impact of consolidations on the affected employees was considered for the first time at the national level. The issue was raised by the Railway Labor Executives' Association, in December 1929, when it strongly opposed the announced plan of the ICC for consolidating the railroads into 21 systems. And when in the spring of 1930 the consolidation of the Great Northern and the Northern Pacific systems was authorized, labor was partially instrumental in having a Senate resolution introduced to suspend the authority of the ICC to approve further consolidations. Representatives of the Brotherhoods pointed to data submitted by the Great Northern and Northern Pacific Railroads showing that of the \$10,000,000 to be saved annually as the result of the merger, \$8,000,000 would come from reduction of employees. Labor demanded that hardships and losses imposed on employees be compensated, without imposing an unreasonable burden on the carriers involved.

In addition to seeking legislative aid, the unions raised the issue in direct collective bargaining negotiations. During

*Assistant Chief, Economics and Statistics Division, Federal Communications Commission. The views expressed herein are those of the author and do not necessarily reflect the views of the Federal Communications Commission.

1931 and 1932, while agreeing to a general wage cut, the unions sought management accord on a minimal program of labor protection in merger cases. No agreement, however, could be reached at that time.

After the advent of the "New Deal," an Emergency Railroad Transportation Bill was introduced to rescue the industry from threatened wholesale bankruptcy. The measure proposed to establish a Federal Coordinator of Transportation who would encourage, and, if necessary, force widescale railroad consolidations consonant with the public interest. During hearings on the bill, the 21 standard railway brotherhoods opposed the measure on the grounds that it would deprive thousands of employees of their jobs, seriously reduce transportation service to the public, and retard economic recovery. Donald Richberg, spokesman for the unions at the time, pointed to the drop of almost 800,000 in the railway labor force between 1920 and 1931. The morale and efficiency of the labor force were at stake, he insisted, and consequently the efficiency and economy of the railroad service itself. Merger, he argued, was a mere palliative and he urged other measures designed to modernize the industry. If, however, Congress was determined to adopt a policy of consolidations, Richberg maintained that the program should protect employees no less than bondholders.

While vigorously opposed by management representatives, Richberg's testimony received overwhelming Congressional support, and the bill was amended to include labor protection. With the general labor market badly depressed, to permit the railroads a free hand in disposing of surplus employees appeared to Congress highly inequitable and inconsistent with the objectives of the national recovery program. Typical of

statements made during the debate on the bill were the following:

"Only a detailed study of the results of railway unifications can show the misery which they have brought, and potentially may bring, to railway workers and to communities dependent upon railway operations. During the hearings upon this bill, and in their efforts to bring about the amendments which have been added to the bill as now presented, the standard railway labor organizations have earned the gratitude of this body and of the Nation for their clear demonstration of the dangers inherent in the uncontrolled reorganization first proposed."

"... We should defeat our own purpose if we passed legislation here that would deprive 150,000 men of their present jobs in order, presumably, that 150,000 or any other number of men might get jobs in the erection of public works and in the prosecution of our project of reforestation."

While from time to time individual companies had provided for employees affected by mergers, the Emergency Act of 1933 was the first instance of Congress imposing this obligation on an entire industry. Included under Section 7 of the Act were four specific labor protection measures. The first directed the Coordinator to confer with committees of railway labor organizations before issuing any orders requiring changes in service or operation. The second provided that the number of employees in the service of a carrier was not to be reduced below the number at work in May 1933 by reason of any action taken under authority of the act; curtailment of forces was limited to vacancies created by death, normal retirements and resignations and was not to be in excess of 5 percent in any one year. The third proviso guaranteed job and wage protection to all employees in service during May 1933 insofar as any consolidation measures were effected under the Emergency Act. Finally, the railroads were required to compensate employees for property

losses and expenses resulting from transfers caused by consolidations. In addition, other sections of the act protected the contracts and collective bargaining rights of the employees, and directed the Coordinator to investigate means for stabilizing railroad labor employment and promoting other improvements of labor conditions and relations.

The Act of 1933 was avowedly a stop-gap measure designed for an emergency situation. From the viewpoint of labor, the job and wage protection was limited to employees in service during May 1933, and with the passage of time the number of those protected grew steadily less. Management, on the other hand, maintained that the provisions were too rigid and prevented many consolidations.

To ensure a thorough review of the railroad labor situation, especially in connection with coordination projects and other labor-saving improvements, Coordinator Joseph B. Eastman appointed an advisory committee of distinguished specialists in the field of industrial relations. After months of study, the committee concluded that not only were employees entitled to protection but recommended a comprehensive program of protection. Certain of the committee's proposals, including merging of seniority, retirement annuities, dismissal pay, and compensation for transfer expenses were incorporated in a bill recommended to Congress by the Coordinator.

While the measure was pending the Supreme Court voided the first Railroad Retirement Act. Fearing a similar fate for other railway labor legislation, and in view of the imminent demise of the Emergency Transportation Act, the Coordinator and later President Roosevelt urged management and labor to negotiate a voluntary agreement covering the merger problems. In May 1936, such an agreement was finally concluded by

the 21 railway labor unions with practically all of the railroad lines.

The pact, known as the Washington Job Agreement, was hailed as a milestone in labor-management collective bargaining relationships. Within 4 years after refusing to accept a minimal job-protection program, railroad management went farther than any other industry in accepting responsibility for employees affected by consolidations. The major provisions of the agreement are briefly summarized below.

Notification and preliminary negotiation process. The agreement provides for 90 days' written notice to employees affected by a contemplated merger, together with an estimate by the company of the number of employees of each class affected by the proposed changes. Arrangements are at the same time to be made for a conference between the union and the carrier, and plans for merging of the labor forces are to be determined jointly by these parties.

Protection of employee's position. Following a merger, an employee in exercise of his seniority rights may obtain a position of equal or higher compensation in the merged company. If, however, after exercising his seniority rights, the employee is placed in a worse position with respect to compensation and rules governing work conditions, he is entitled to a monthly "displacement allowance." This allowance is to equal the difference between the monthly compensation received in the new position and one-twelfth of the compensation received during the last 12 months of service in the former position. The period during which the allowance is to be paid is to extend for a maximum of 5 years.

Coordination allowances. An employee dismissed as a result of the merger because of the abolition of his position or through the exercise of seniority rights by

another employee is to receive a "coordination allowance." This payment is to equal 60 percent of the average monthly compensation received by the employee in the last 12 months of service. If the employee is employed on another railroad, his coordination allowance is to be reduced accordingly. The period during which the allowance is to be paid is graduated according to the length of service of the employee, with a maximum of 5 years. If the employee resigns, he is to receive a lump sum payment.

Protection of employee benefits. No employee affected by the merger is to be deprived during the protective period of benefits such as free transportation, pensions, hospitalization, and relief, so long as such benefits are accorded to other employees.

Reimbursement for transfers. An employee required to transfer during the protective period is to be reimbursed for moving, traveling, and living expenses for himself and his family, including wages lost during the time required for such transfer.

Reimbursement for sale or lease of home. If an employee owns his own home in the locality from which he is required to move, he shall be reimbursed by the carrier for any loss in the sale of his home for less than its fair value. If the employee has a contract to purchase a home, the carrier shall protect him against loss to the extent of the fair value of his equity in the home. If, finally, the employee holds an unexpired lease, the carrier shall protect him from all loss in the cancellation of the lease. Where a controversy arises between the representatives of the employees and the carrier, the dispute may be referred to a board of three real estate appraisers whose decision is to be final.

Arbitration of disputes. For settlement of all disputes, with the exception of those

arising out of the above provision, a committee of carriers and unions is provided; if the committee is unable to agree, it is to select a neutral referee, and the decision of the referee shall be final.

Effective date of agreement. The agreement was made binding for a 5-year period beginning June 18, 1936 and is to continue thereafter with the proviso that any carrier or union may withdraw after one year's notice.

After the abolition in 1936 of the Office of the Coordinator of Transportation, railroad mergers could be effected only under the Interstate Commerce Act. While this act did not contain a specific labor-protection clause, paragraph 5(4) as amended in 1933 directed the Interstate Commerce Commission to determine whether consolidations coming under its jurisdiction would serve the public interest. In the *St. Paul Bridge & Terminal Railroad Company Control* case (1934), Division 4 of the ICC stated that the language in paragraph 5(4) was broad enough to comprehend every public interest; that, since employees are important elements of the railway transportation industry and of the communities in which railways operate, their interest in changes in management, ownership, or operations of the companies by which they are employed is manifest; that it is likewise manifest that theirs is a public interest as well as a private interest; and that just and reasonable requirements on behalf of employees may be required.¹ The Chicago Great Western Railroad was accordingly required to protect the conditions of service of employees of the leased company, including protection of seniority rights, employment tenure, pay scale, pensions, sick funds, and other benefits or allowances.

Following the Job Agreement of 1936, the ICC substantially adopted the pro-

¹ 199 I. C. C. 588 (1934).

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visions of that agreement as the minimum labor protection to be required of merging railway lines. The Commission's authority to impose these conditions was challenged in *United States v. Lowden*, and the case was carried to the Supreme Court in 1939. In its decision upholding the ICC, the Court declared:

"... we cannot say that the just and reasonable conditions imposed on appellees in this case will not promote the public interest in its statutory meaning by facilitating the national policy of railroad consolidation, that it will not tend to prevent interruption of interstate commerce through labor disputes growing out of labor grievances, or that it will not promote that efficiency of service which common experience teaches is advanced by the just and reasonable treatment of those who serve. In the light of that record too we do not doubt that Congress, by its choice of the broad language of Section 5(4)(b) intended at least to permit the Commission, in authorizing railroad consolidations and leases, to impose upon carriers conditions related, as these are, to the public policy of the Transportation Act to facilitate railroad consolidation, and to promote the adequacy and efficiency of the railroad transportation system."²

While the Court thus affirmed the ICC's interpretation of the public interest Congress had under consideration proposed amendments to the Interstate Commerce Act. With few dissenting voices, Congress agreed that a sound national transportation policy required adequate protection of the labor interest and insisted on writing into the Transportation Act of 1940 specific guarantees to employees affected by mergers, as follows:

Section 5(2)(f)—"As a condition of its approval, under this paragraph (2), of any transaction involving a carrier or carriers by railroad subject to the provisions of this part, the Commission shall require a fair and equitable arrangement to protect the interests of the railroad employees affected. In its order of approval the Commission shall include terms and conditions providing that during the

period of 4 years from the effective date of such order such transaction will not result in employees of the carrier or carriers by railroad affected by such order being in a worse position with respect to their employment, except that the protection afforded to any employee pursuant to this sentence shall not be required to continue for a longer period, following the effective date of such order, than the period during which such employee was in the employ of such carrier or carriers prior to the effective date of such order. Notwithstanding any other provisions of this act, an agreement pertaining to the protection of the interests of said employees may hereafter be entered into by any carrier or carriers by railroad and the duly authorized representative or representatives of its or their employees."

In addition to the employee interest, the ICC was directed to consider specifically three other criteria in determining whether a proposed merger would be in the public interest: the effect of the merger on transportation service to the public; the effect on the public interest of the inclusion, or failure to include other railroads in the territory in the proposed transaction; and the total fixed charges resulting from the proposed transaction.

Since the adoption of the Transportation Act of 1940, the Commission's labor-protection policy has evolved, broadly, into three lines of action. Most commonly, the carriers and the unions involved in consolidation cases are covered by the Washington Job Agreement and the Commission stipulates that Agreement as one of the conditions of approving the merger. Even if the particular merger action is not covered by the Agreement, the parties may agree to it, and it is accepted by the Commission.

If, however, the Washington pact is not involved, and the parties cannot agree, the Commission will impose its own conditions if there is evidence that labor is affected by the merger. The ICC provisions, while generally similar to those of

² 308 U. S. 225, 238 (1939).

the Washington Agreement, differ in several important respects. The Commission is bound under Section 5(2)(f) of the Interstate Commerce Act to limit protection to a maximum of 4 years, whereas under the Washington Agreement the protective period in any particular consolidation extends over 5 years. In addition, whereas the period of protection under 5(2)(f) runs from the date of the approval of the merger, under the job protection agreement it begins when the merger is actually consummated, which may be a year or two later. Under the ICC conditions, an employee deprived of employment receives a monthly allowance equal to one-twelfth of the compensation received in the previous 12 months of employment; under the Washington pact the employee receives only 60 percent of his previous average monthly compensation. Under the ICC conditions, compensation earned from other work may be used as an offset in computing his allowance; under the Washington agreement only such money as a displaced employee earns from another railroad during his protected period can be used to offset his dismissal allowance.

The third type of Commission action arises in consolidation cases where no labor interest appears to be involved, or where the existence of such an interest may be present but cannot be definitely established. The Commission policy in all such cases, since the *Chicago & Northwestern Railway Company Merger* (May 29, 1946) is to impose as a condition of merger the exact language of Section 5(2)(f).³ This provides a basis for a more specific agreement between the parties should it later turn out that labor protection is needed, and if the parties cannot agree, the ICC may be requested to reopen the case.

Abandonment of facilities. While the

ICC's obligation to require labor protection as a condition of approving mergers was thus firmly established, extension of the policy to cover cases involving abandonment of facilities was being urged by the railway unions. Under Section 1 (18)-(20) of the Interstate Commerce Act, the ICC is directed to determine whether any proposed abandonment of facilities will be in the public interest and to attach such terms and conditions as in its judgment the public convenience and necessity may require. In a number of decisions, the ICC ruled that it lacked authority to impose labor-protection conditions under this section of the Act. This view was challenged by the Railway Labor Executives' Association in *Interstate Commerce Commission v. Railway Labor Executives' Association*, with the Supreme Court in 1942 ruling that the ICC had authority to attach terms and conditions for the benefit of employees displaced by railroad abandonments. Justice Hugo Black, speaking for the majority, declared:

"... the immediate result of permitting the abandonment itself is a private benefit for the railroad in the form of savings realized by discontinuing uneconomic services. The justification lies in the benefit to the transportation system which the Commission concluded the abandonment would produce. There is nothing in the Act to prevent the Commission from taking action in the furtherance of the 'public convenience and necessity' merely because the total impact of that action will include benefits to private persons, either carriers or employees. The *Lowden* case specifically recognizes that the imposition of conditions similar to those sought here might strengthen the national system through their effect on the morale and stability of railway workers generally. Exactly the same considerations of national importance are applicable and operative here."⁴

In line with this decision, the ICC has required labor protection in abandon-

³ 261 I. C. C. 672 (1946).

⁴ 315 U. S. 373, 378 (1942).

ment cases where such protection has been judged to be in the public interest. The specific terms may be agreed upon by the parties, or if an agreement cannot be reached, the Commission imposes conditions closely resembling those it requires in merger cases. In proceedings involving the abandonment of an entire line or system, however, the Commission has declined to impose conditions for the protection of employees.

Because abandonment cases are much more frequent than consolidation procedures, the railway unions are currently seeking to broaden the scope of the Washington Job Agreement to cover such cases. Thus far, however, no agreement has been reached with the carriers.

Thus, within a period of 15 years, a new area of railroad employee rights has been staked. A procedure governing consolidations and abandonments has been developed which has been acceptable to the rank and file of railroad employees as fair and equitable. It does not ensure absolute protection; even during the protective period, employees are subject to dismissal or "bumping" into lower grade jobs as a result of the consolidation of labor forces. However, since the procedure is based on general recognition of seniority rights, with an appeal machinery for aggrieved employees carrying all the way to the annual convention floor of the unions, discontent and unrest are minimized. On the other side, management, recognizing the advantages to be derived from improved employee relations, has withdrawn from its original intransigent position and has come to accept employee protection as another rule of the game. Government, including Congress, the Federal Coordinator of Transportation, the Interstate Commerce Commission, and the Supreme Court, has given its blessing to the policy as an essential

element in protecting the public interest in merger and abandonment cases.

Motor and Water Transport

Under Section 5 of the Interstate Commerce Act, the ICC is also required to pass on proposed mergers of motor or water carriers. Under its mandate to protect the public interest, the Commission is required to give consideration to the employee interests involved, although the specific labor protection provisions of the Act are limited to rail carriers. Thus, in a recent decision approving control by the Greyhound Corporation of the Cincinnati & Lake Erie Transport Company, the ICC pointed out that the 468 employees of the latter company would retain their seniority rights and their existing labor contracts would be honored by the Greyhound Corporation. In another decision the Commission, in considering the employee interest, stated that the applicant in the consolidation case had promised that no employees would be dismissed as a result of the transaction and that the company had agreed to enter collective bargaining relationships with the union to afford protection to the employees involved. Other cases may also be cited in which the ICC has taken cognizance of the interests of employees by pointing out that their employment and wages would be unaffected by the particular mergers of motor or water carriers.

Aviation

The utilization of the yardstick of employee interest in mergers is also presently being considered in the regulation of the youngest of the transportation industries. In a case before the Civil Aeronautics Board involving the proposed consolidation of the Pennsylvania-Central Airlines and the Northeast Airlines, the issue of employee protection was raised for the first time.

Two of the unions involved, the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, and the International Association of Machinists, maintained that the same terms of protection be given to the airline employees as is given railroad employees. The Air Line Pilots Association, in behalf of its members, urged that there be no reduction in employment and claimed the right to establish new seniority lists merging the Pennsylvania and Northeast pilots. The unions cited the similarity of Section 408 of the Civil Aeronautics Act to Section 5 of the Interstate Commerce Act under which the ICC had granted employee protection prior to the specific labor provisions added in 1940.

A representative of the Pennsylvania-Central management testified that the company was willing to accept reasonable protection, but maintained that the standards applicable to the railroad industry were not applicable to a young industry where the men had only 2 to 4 years of seniority.

The CAB trial examiner, in urging approval of the proposed merger, recommended that the Board grant labor protection but made no recommendations as to the specific terms of the protection. Subsequently, for reasons unconnected with the labor protection issue, the Pennsylvania-Central petitioned that the case be dismissed, which was agreed to by the CAB.

The labor-protection issue was again raised in the purchase by the United Air Lines of route No. 68 of the Western Air Lines; the purchase was approved by the CAB on August 26, 1947. The Board's opinion in the case pointed out that Western's president had testified that every Western employee engaged on route No. 68 would be absorbed elsewhere in the Western system, with due

regard for seniority, and that the company would pay the moving expenses of the employees affected. The Board therefore concluded that it did not need to impose any labor-protection conditions.

Within a week of the above decision, Western proceeded to furlough 23 pilots that had been engaged on route 68; it also laid off ground personnel and stewardesses. Three unions, representing different segments of the Western labor force, thereupon petitioned the CAB to amend its order to impose labor conditions. The Air Line Pilots Association in its petition referred to a resolution adopted by its executive board on May 24, 1947 establishing a union policy of employee protection, including equitable merger of seniority, as follows:

"Resolved, That in the event of a merger, acquisition, consolidation or any other form of the acquiring by one air line of another air line or a part thereof, that the air line pilots flying on such air line or portions thereof at the time such event occurs are considered as being acquired with the air line or portion thereof and their respective accrued seniority rights remain as their possession and continue to accrue as their possession after such ownership and moreover, that such pilots and co-pilots flying on such air line at that time cannot be dealt with unfairly and their continued employment with the purchasing company endangered or prejudiced in any manner.

"The number of pilots affected by such event should in no case be larger or smaller than the normal number of pilots used in that operation at the time this event is approved by the CAB."

The petitions of the unions were heard by the Public Counsel of the CAB who agreed that the case should be reopened to provide adequate protection for the employees, either by voluntary agreement of all the parties involved, or, failing that, by order of the CAB. A final decision by the Board itself, on the petition of the unions is pending. Affirmation by the Board of the Public Counsel's recom-

mendation would constitute a significant precedent for future airline mergers.

Telephone

The precedent established in the transportation industry was reinforced in the communications field. In approving the unification of the Keystone System companies with the New Jersey Bell Telephone Company and the Bell Telephone Company of Pennsylvania in February 1943, the Federal Communications Commission set forth the principle of equitable employee treatment, as follows:

"Upon consolidation, it is proposed that employees of the Keystone System companies will be absorbed into the consolidated companies at rates of pay no less than those received by such employees at the time of consolidation. Thereafter, such employees are to be treated for purposes of position, advancement, discharge, and pension right as if they had been applicants' employees during the period of their employment by the Keystone System companies. If these proposals are carried out, the acquisitions which are the subject of this proceeding will not lead to action prejudicial to the interests of the employees of the Keystone System companies, but will be to their advantage."⁵

This same principle of employee protection has been applied in other telephone mergers, including those involving the Carolina Telephone and Telegraph Company and the Eastern Telephone Company, and the Southern Bell and the Milton Telephone Exchange.

Telegraph

Western Union-Postal Telegraph Merger. The major case involving the disposition of employees in a communications merger occurred in the telegraph industry. During the 1930's, the two major domestic telegraph carriers, Western Union and the Postal Telegraph Company, fell on hard times and sought Congressional consent to merge. In considering

whether the establishment of a telegraph monopoly would be in the public interest, Senate and House committees repeatedly recommended as complete employee protection as was practicable. The reasons advanced for the recommendation were numerous:

(1) The virtual unanimity on the need for labor protection expressed by the representatives of management and the interested government departments, as well as by representatives of the labor organizations.

(2) The fact that the merger would leave Western Union a virtually complete monopolist in the domestic telegraph field, and employees not absorbed by the merged carrier would have no alternative but to leave the industry. A large proportion of the employees involved had 10 or more years of service in the industry.

(3) The undesirability in the period before 1941 of permitting the Postal labor force to be thrown on a generally depressed labor market.

(4) The high turnover rate in telegraph after 1942, when jobs were available at higher wages in war industries. The attrition rate reached 7,000 per year in the non-messenger force compared to Postal's entire adult labor force of 9,000.

(5) The vital need during the war of maintaining a stable, experienced employee force to move the greatly expanded volume of telegraph traffic.

(6) The belief that the economies of merger would more than offset the extra cost of employee protection.

(7) The precedent established in the railroad industry.

The merger legislation as finally adopted by Congress in 1943 contained a program of labor protection which in some respects went beyond that required in the railroad industry. The specific provisions of the Act, summarized below, covered job and wage protection, transfers, pensions and benefits, military furloughs, collective bargaining agreements, and enforcement procedure.

Job and wage protection. The legislation distinguished between employees hired

⁵9 F. C. C. 261,267 (1943).

before March 1, 1941, the assumed date of wartime expansion in the industry, and those hired subsequently. An employee hired on or before March 1 was guaranteed employment after the merger approval date for a period at least equal to his years of prior employment in the industry, with a ceiling of 4 years. During this period, the employee's compensation was not to be reduced nor was he to be assigned work inconsistent with his past training and experience in the industry.

The length of nominal job protection for employees hired after March 1 was computed on the same basis as above, and if employed during this period, the employee's compensation was not to be reduced. However, the company was permitted as an alternative to furlough or discharge these junior employees on payment of a specified dismissal allowance.

Several other provisions relating to job and wage protection were included. Preferential hiring and employment status was accorded for a 4-year period to any employee who was on the rolls of either company on the date of the merger and who was subsequently discharged as a result of the consolidation. Moreover, no employee was to have his compensation reduced or be discharged during the 6 months immediately preceding merger approval. Nothing in the act was to be construed, however, as preventing the company from discharging any employee for insubordination, incompetence, or any other similar cause.

Transfers. If any employee was transferred from one community to another as a result of the merger, the act required the merged carrier to pay the traveling and moving expenses of the employee and his family.

Pensions and benefits. Postal employees were to be accorded the pension, health, disability, or other benefits provided by

Western Union on the same basis as if they had been Western Union employees. If an employee had already exercised his rights to retirement or any other benefits, these were to be continued by Western Union in conformity with the agreement under which the rights had been exercised. As a condition of receiving final approval of the merger by the Federal Communications Commission, Western Union was required specifically to guarantee that there would be no impairment of the existing pension and benefit rights of employees.

Military furlough. The merger act required that any employee who after August 27, 1940 had left either company to enter the military service was to be considered as being on employee status and on return was to have the same rights as a comparable employee. If disabled, the veteran was to be given such available employment at an appropriate rate of compensation as he was able to perform and to which his service credit entitled him.

Collective bargaining agreements. The hours of employment specified in any contracts existing on the merger date were to be continued until the agreement was terminated, executed, or superseded.

Enforcement machinery. The statute placed the enforcement of these labor-protection measures with the National Labor Relations Board, which was to have the jurisdiction and power specified for the enforcement of the Wagner Act.

Congress directed that the specific plan of merger, prepared by the telegraph companies, be submitted to the Federal Communications Commission for its approval. During the hearings conducted by the Commission it became evident that loopholes existed in the labor-protection provisions which if left open might nullify the intent of Congress. The Commission was very much concerned

at this critical stage in the war with the deterioration of telegraph service resulting in considerable measure from labor shortages and high turnover. Considerable unrest had developed among the employees, particularly in the Postal Company, who feared the consequences of the merger on their job status. To halt as far as possible the further exodus of experienced employees the Commission obtained from Western Union officials assurances of additional labor protection measures. These commitments are enumerated in the Commission's opinion approving the merger, as follows:

(1) "Specifically, Western Union has undertaken to place Postal employees in positions in the merged company comparable to those formerly held by them.

(2) "In dealing with the problem of seniority, Western Union has committed itself to the policy of merging the seniorities of the employees of the two companies so that full recognition shall be given to the records of service of employees irrespective of their former company of employment. This recognition is to be applied to questions of position, advancement, and all other conditions of employment affected by seniority.

(3) "Further benefit to the Postal workers is provided by Western Union's commitment to raise the wage level of the Postal force to the generally higher wage level of Western Union.

(4) "It also gave repeated assurances that it would make every effort to retain in the industry all employees of either company and expressed confidence that no employee need be discharged as a result of the merger.

(5) "Special consideration was expressed for telegraph employees in the armed forces. As for such employees hired after March 1, 1941, the Western Union Vice President in Charge of Labor Relations recognized an obligation of the merged company to reabsorb them, as well as employees hired prior to such date, after the war. It was conceded that the computation of the severance pay of employees hired after March 1, 1941 must take into account all the time spent in the armed forces.

(6) "Western Union indicated it will make

every effort to keep transfers at a minimum and within seniority areas.

(7) "Western Union officials have stated that they will honor the union contracts of both companies in effect on the date of the approval of the merger.

(8) "They have also stated that in computing length of employment, an employee of either company who was hired by that company on or after March 1, 1941 but whose preceding employment with the other carrier began prior to March 1, 1941, will be considered to have been hired before March 1, 1941 for the purposes of Section 222(f)(1) of the Act and for other purposes as well."

The record of the merger hearings is clear with respect to the purposes which the commitments were intended to serve. The Commission felt that the plan for merger originally presented by Western Union and Postal did not contain adequate assurances that the merger would, in fact, serve the public interest. In the course of the hearings, therefore, the original plan was supplemented by additional guarantees among which were the above quoted commitments.

The Commission also sought during the hearings to establish agreement among the unions on the procedure for consolidating the seniority rights of employees. As indicated previously, the railway unions had agreed to honor the seniority rights of all employees involved in a railway merger as the most equitable and effective means of minimizing employee unrest, and it was hoped the precedent would be followed in the telegraph merger. Postal employees were represented by the American Communications Association, CIO, while most of the Western Union employees belonged to AFL unions, principally the Commercial Telegraphers' Union. After first agreeing to recognition of seniority rights, the CTU reversed itself and insisted that Postal employees as a group be placed at the bottom of the seniority rolls and be treated for most purposes as new em-

employees. This was a crucial issue as positions, tours of duty, vacations, promotion opportunities, and other vital working conditions hinged on seniority status. Since this stand was contrary to Congressional and Commission interpretation of the public interest, the principle of equitable integration was made a responsibility of the company itself, with the determination of specified procedures left open for further negotiations.

Shortly after the merger, the CTU sought a temporary injunction to restrain Western Union from recognizing the right of the ACA to represent former Postal employees absorbed by Western Union and to prevent the company from complying with its commitments to the FCC on merger of seniority. In denying the petition, Judge Morris of the United States District Court stated:

"To the extent that parity, rather than subordination, adversely affects plaintiff's [CTU] contract, there can be no doubt that the statute authorizing the consolidation itself in large measure has that effect. The public policy, as reflected in that legislation, favors parity as against subordination. That parity would occasion some hardship to the employees represented by the plaintiff, but no more so than it would the employees represented by the intervenor [ACA] may well be true, *but such hardship would seem incomparable to that which complete destruction of their seniority rights would visit upon the latter.*"⁶ (Italics supplied)

While the court thus upheld the principle of merging seniority, the failure to agree on definite procedures for such integration resulted in the Commission's receiving hundreds of letters from former Postal employees protesting that the company had not carried out its commitments. Most of the complaints alleged assignment of non-comparable jobs, reductions in hours and pay, and non-recognition of seniority accrued with

Postal. In addition, the imminent expiration of the extended ACA contract and the unwillingness of the company further to renew or extend the contract left former Postal employees with the prospect of representation by unions that refused to recognize their seniority rights. Consonant with its obligations in the matter, the FCC called a conference of management and unions and persuaded Western Union and the ACA to stipulate their differences to the National War Labor Board.

The Board's directive in settlement of the dispute both reaffirmed and implemented the commitments made by Western Union. With the consent of the AFL, which withdrew from its previous position, the seniority of former Postal employees was to be merged with that of Western Union employees on the basis of Western Union's seniority provisions. Almost 90 percent of the Postal adult labor force were to receive jobs in Western Union identical with those they held in Postal on the date of merger. An equitable procedure for placing the remaining 10 percent was established. Hourly wage rates of former Postal employees were to be raised to the level of Western Unions' employees for the same type of work, allowance being made for ability and seniority. Finally, an arbitrator was to be appointed by the NWLB to settle disputes arising under the Board's order, under the Postal-ACA contract assumed by Western Union, and out of conflict between the provisions of the ACA contract and other labor contracts to which Western Union was a party.

While the National War Labor Board was hearing argument and establishing machinery for the implementation of the commitments, the National Labor Relations Board was considering the petition of the AFL for a national employee election in Western Union. In October

⁶ 53 F. Supp. 90, 96 (1943).

1944, the NLRB ordered elections to be held in each of the seven divisional units of Western Union, and in March 1945 the AFL was certified as the collective bargaining agent for all Western Union employees outside the Metropolitan Division (New York City), the ACA being certified for that division. Immediately following the election the AFL moved to nullify the merger commitments. It challenged the authority of the arbitrator operating under the NWLB order, stating that it did not regard as binding any decisions made by him outside the Metropolitan Division.

Acting upon this challenge, the NWLB suspended further arbitration outside New York and directed a 60-day period during which the company and the AFL should engage in collective bargaining looking toward the development of a possible solution which would operate within the framework of the company's commitments to the FCC. After the parties subsequently reported back to the Board that they were unable to agree, the NWLB held a hearing on this matter, as well as on wage and on other issues, and in December 1945 the Board generally reaffirmed the former procedure for integration of the labor forces, including the maintenance of the seniority and the wage parity formulae as previously determined. With respect to the settlement of disputed cases, the order provided for their presentation by the AFL to an arbitrator selected by the parties for final and binding determination. Since this decision, the integration of the Western Union and Postal employees has been substantially completed without further dispute.

In appraising the labor complexities of this merger, it must not be overlooked that within 2 years some 5,000 Postal employees, located throughout the country, were successfully integrated into the

Western Union telegraph system on a basis of general equality with comparable Western Union employees. By thus retaining within the industry these experienced employees, Western Union was better able to meet wartime traffic demands. The problems that were encountered in the consolidation process arose mainly from the omission of seniority protection in the merger legislation, the nature of labor-management relations in the telegraph industry where genuine collective bargaining had barely been accepted by Western Union when the merger occurred, and the short-sightedness of some of the union leaders.

Telegraph Abandonments. Very recently the issue of labor protection in cases of telegraph abandonments has been raised. Western Union, faced with a serious financial crisis, embarked in 1946 on an "economy" program, involving numerous closures of telegraph offices and the conversion from company-operated to agency-operated offices. During hearings held in March and April 1947 by the FCC to determine the impact of this policy on telegraph service, both the AFL and the CIO unions urged the FCC to apply the pattern established in the railroad industry and require labor protection as a condition of approving telegraph office closures or conversions. The Commission's decision in this docket is still pending.

International Communications

Following the consolidation of the domestic telegraph carriers, the Senate initiated an investigation of international communications to determine the desirability of merging the various cable, radio-telegraph, and radiotelephone carriers. At hearings held early in 1945, government witnesses urged the adoption of labor protection measures in the event of a merger. Chairman Paul Porter of the FCC, in outlining recommendations on

this subject, pointed to the experience of the Western Union-Postal merger as indicating the need for specifying by statute the equitable merging of seniority and the maintenance of collective bargaining agreements pending certification of new bargaining agents, as well as requiring the other labor protection measures of the domestic merger.

While the 1945 hearings have not crystallized into any proposed bill it appears likely that, if a merger in the international field is eventually approved, provisions will be made for protecting the employees involved.

Conclusion

An evaluation of the effects of mergers in the public utility field is beyond the scope of this paper. On the assumption, however, that there are worth-while consolidation projects, the question may be raised as to the relation of labor-protection measures to the consummation of such projects.

In appraising the costs of labor protection, it should be recalled that the period of labor protection generally extends for only a few years. The maximum is 4 or 5 years, with junior employees protected for lesser terms. While the merged company may, therefore, not reap all of the economies of merger immediately, it generally has wide latitude after the lapse of the protection period.

In addition, economies other than reduced labor costs may often be the decisive factors, such as those resulting from the elimination of competitive wastes and the needless duplication of services. Under this heading may be included the elimination of duplicate offices, special allowances to customers, extravagance in solicitation of traffic, waste in use of equipment, and wasteful practices affecting equipment, materials, and supplies.

In evaluating the costs of labor protec-

tion, moreover, weight must be given to the benefits accruing to the consolidated company as a result of such measures. As stated by the Supreme Court, a policy of labor protection aids employee morale by assuring him of an equitable recognition of his interests. It tends, therefore, to stabilize labor-management relations and to encourage experienced employees to remain in the industry. These considerations are particularly important in service industries such as public utilities.

Congress and the regulatory agencies, moreover, have in the past fifteen years stressed the social effects of public utility mergers. This principle was recognized by the Interstate Commerce Commission when it stated:

"Railroad organization consists of four important and indispensable factors, namely, land, labor, capital, and management. High specialization is necessary for each railroad factor. Whenever expert railroad labor is compelled to readjust and adapt itself to another industry, there is substantial loss to the individuals and to the general public."

In computing the savings anticipated from a merger, the regulatory body cannot overlook such losses.

The policy of labor protection in mergers and abandonments has raised certain administrative problems. There are undoubtedly instances where the policy creates difficulties in making a proper allocation of the consolidated labor forces. Nevertheless, as affirmed by the Senate Interstate Commerce Committee, which over the past 10 years has considered the problems of labor protection in merger cases:

"We do feel, however, that the solution of these problems is not impossible; that the public interest requires that they be solved, and that with the goodwill and cooperation of labor, management, and Government they can be solved to the great benefit of all parties concerned."⁷

⁷ 77 Cong. 1 Sess. Sen. Rept. No. 769, *Study of the Telegraph Industry* (Oct. 28, 1940), pp. 16-17.

Reports and Comments

The Development of Salter's Conception of Research

This paper is written by a colleague of the late Leonard A. Salter, Jr. It should be read by "every agricultural economist who has within himself the power of new growth." The immediate incentive which inspired Professor Parsons to write down his interpretation of Salter's conception of research was the publication posthumously of *A Critical Review of Research in Land Economics*, which is reviewed on page 196 of this journal. (Editor)

THIS note is written in the hope that it may contribute to the understanding and eventual evaluation of the work of our late friend and colleague, Leonard A. Salter, Jr. In his doctoral dissertation, recently published,¹ he attempted an integration of his thinking around issues over which he had struggled for a decade. The thesis also suggests some shifts in emphasis which might have carried Salter to a fundamental revision of some of his basic conceptions.

In a visit with Professor H. C. Taylor last summer, I remarked on a few incidents in Salter's life which seemed to me to give some explanations of the way his viewpoint had developed. Something I said made Salter's thesis more comprehensible to Professor Taylor and he immediately exacted a promise from me that I would sometime record the substance of the comments made to him. In the effort to keep that promise I have been carried much farther in my analysis of Salter's viewpoint.

I

Within the past few days I have re-read virtually all of Salter's writings in which he was concerned with the issues of the methodology of research. It is somewhat remarkable that he first opened up the basic issues in research in his Master's thesis at Connecticut in 1934² and returned a decade later to give them mature consideration in his doctoral dissertation. In the meantime the progress of his thought is recorded in various publica-

tions, especially: "The Content of Land Economics and Research Methods Adapted to Its Needs";³ "Cross-Sectional and Case-Grouping Procedures in Research Analysis";⁴ and *Land Tenure in Process*.⁵ The last two were written at about the same time. The issues raised in his early graduate work were transplanted to Wisconsin, where Salter's fertile mind found both stimuli and opportunity for continued growth.

Salter was deeply aware of his debt to the late I. G. Davis. In the seminars with Professor Davis, the young apprentice came to see that a "given set of data" could be combined in different ways to give "wholly different results" and "that the crucial question was not the accuracy of the method in the conventional sense but the concept the researcher had of his problem."⁶

In this intellectual atmosphere Salter assisted Professor Davis on his part-time farming research⁷ and then ventured out into the investigation which served as his Master's thesis. Here he was not only studying part-time farming but also trying to analyze its place in the social economy of rural Connecticut.

It is clear that Salter dated his own efforts to analyze and understand research procedures from his experience on his Master's thesis. In his doctoral dissertation Salter observed of this attempt: "It was . . . necessary to forge a new system of analysis in order to get at the real substance of the new

¹ *A Critical Review of Research in Land Economics* (Minneapolis: University of Minnesota Press, 1948).

² *The Place of Part-Time Farming in the Social Economy of a Rural Area*, Master's Thesis (Connecticut State College: 1934).

³ *Journal of Farm Economics*, February 1942, p. 226 ff.

⁴ Same *Journal*, November 1942, p. 792.

⁵ Wisconsin Research Bulletin 146, A.E.S., February 1943.

⁶ Introduction to *Critical Review of Research in Land Economics*, p. 2.

⁷ See "Part-Time Farming in Connecticut," Davis and Salter, Storrs Agr. Exp. Station Bul. 201, March 1935. Salter became one of the few real authorities on part-time farming in this country.

problem."⁸ It was here that he worked out the case-grouping technique to which he later came to attach great significance. In his first graduate thesis Salter sought to find ways of classifying part-time farms into sufficiently small subgroups as would be "subject to the same personal or environmental forces."⁹ The similarity between his Master's thesis and the *Land Tenure in Process* bulletin a decade later makes it evident that Salter's basic research approach was shaped up in the earlier study. I have the impression, however, that he had not yet worked out an interpretation of what he had done at the time of his coming to Madison in the fall of 1940.

Soon after his arrival at Wisconsin, a colleague suggested that Salter read Dewey's *Logic*, thinking that he might find many of his own intellectual puzzles worked out there. Salter responded with alacrity, even though he had never had a single college course in philosophy. The study of Dewey, new university responsibilities—especially those of graduate teaching—the sympathetic counsel of Professor Wehrwein, and the accumulated puzzles of previous years, all combined to give Salter's mind a fresh start on the study of research procedures.

II

The first major effect by Salter to state the issues in research was in his paper before the New England Research Council, April 1941, "The Problem of Techniques in Land Economics Research." In this paper he sketched out the problem which was to serve later as his doctoral dissertation. "It is the major thesis of this paper," he commented, "that we are at something of an impasse in our research work, that the stalemate is caused by not knowing just how to go about doing our research, that to resolve the question involves a change in our concept of scientific inquiry."¹⁰ Here we find him hopefully exploring the possibilities of basing a revision of research method on Dewey's formulation. Lynd's work also came in for praise and quotation.¹¹ He was skeptical and critical of any near exclusive reliance on statistics as the research method. On the constructive side he suggested that we needed methods for

ordering "our data in such a way as to avoid cutting the heart out of the human phenomena which is our subject matter."¹²

Less than a year later he was restating the same general issues before the annual meeting of the American Farm Economic Association. Here he sketched out and endorsed an essentially pragmatic theory of science: "The answer is founded on the proposition that knowledge must be relevant to action; that the essence of science is inquiry; and that the final objective of inquiry is better to equip ourselves to control the events of ordinary experience. Scientific inquiry must ultimately be related to the solution of experienced problems; its significance judged on the basis of its contribution to that solution; and its final test of validity set in the result obtained when the conclusions are put to test in purposive action." The strategic question in Salter's mind at this time appears to be how do we classify data so as to make them relevant to problems, and to action in resolving problems. In writing this paper he finally crystallized the main issues in his view regarding the ordering of social data: "to show the sequential order of the phenomena under study" and "to retain the pattern of attributes within the units of observation."¹³

He was especially enthusiastic about the phrase—"retain the pattern of attributes." This became the central thesis in his subsequent paper on cross-sectional and case-grouping procedures: "The central thesis is that proper attention to the internal construction of observed cases is a prime requisite of scientific inquiry. The exposition is an elaboration of a statement made in a previous article to the effect that we need to develop techniques which retain the pattern of attributes within the units of observation."¹⁴ It was not until I read his doctoral dissertation that I understood just how this conception fitted into Salter's thinking and why it actually became the central idea in his whole viewpoint.

III

The larger part of Salter's thesis is directed to the review of the literature of land eco-

⁸ *Critical Review*, p. 2-3; see also, "Cross-Sectional and Case-Grouping Procedures," *supra*, p. 799.

⁹ P. 44.

¹⁰ *Proceedings*, p. 40 (mimeo.).

¹¹ Robert S. Lynd, *Knowledge for What?* (Princeton Univ. Press, 1940).

¹² *Proceedings*, p. 53.

¹³ *Journal of Farm Economics*, February 1942, p. 226.

¹⁴ "Cross-Sectional and Case-Grouping Procedures in Research Analysis," *Journal of Farm Economics*, November 1942, p. 792.

nomics, including many closely related bulletins or monographs from other fields. It is in the criticisms of these studies that Salter's own viewpoint stands out most clearly. Here earlier suggestions merge into a consistent, determined effort to hold economics to the task of studying human behavior—to really make economics come to a focus on the investigation of human relations within purposive activity. He remarked concerning one study: "Out of this analysis some suggestions for action are arrived at; but again what is missing is information of the type necessary to test whether people actually do behave in accord with the highly suggestive conceptual explanation that is advanced." (p. 226)

To really understand Salter's intellectual struggle during the ten to twelve years he worked on research methodology, one would need to place himself back at Connecticut in the days when I. G. Davis was studying types of farming with young Salter at his elbow—and then measure the distance between the issues set in those days and the ones Salter saw in 1945. In these earlier days many agricultural economists were talking about how soil "determined" the type of farming. It is a long way from such a conception to the one implicit in the above quotation from Salter's Ph. D. thesis.

It is clear that Salter gradually reshaped his own view of economics as he studied the results of research efforts in social science. Viewed positively, Salter evidently was trying to make economic analysis converge on purposive action; on the negative side he was protesting against limiting economics to a positivistic science. His reaction against cross-sectional statistical analysis was not so much a protest against statistics as against the positivism implicit in the conventional method.

When one sees Salter's insistence upon the need to "show the sequential order of the data" and to "retain the pattern of attributes" in relation to what one might call his humanistic view of social science, the whole web of his argument is illuminated and simplified. Salter held social science to the task of contributing to the solution of immediately-experienced, practical problems. Such solutions require purposive action. He wanted research to investigate cases in which individuals had actually met and solved problems and he insisted that, when such investigation was made, the sequential pattern of what had been done be preserved for the record. Thus

the strategic pattern of attributes was really a record of the means-consequence relations within purposive action.

Once one grasps the underlying drift of Salter's argument the more particular remarks and criticisms can be seen in better perspective. If one undertakes a critical analysis of Salter's own statement of the issues of research methodology it would be well to bear in mind two points: (1) that Salter's research experience and main field of interest were somewhat specialized around the problems of land economics, which involves the analysis of social organization and public policy action to a greater degree than many aspects of agricultural economics; and (2) that Salter did not live to carry the argument to a definitive conclusion. His interest in science and scientific method was too deep for him to have been thoroughly committed to an exclusive test for science of the immediately practical problem-solving, even though he insists upon this as an essential part of the test. Also I think his conception of an hypothesis would have been modified somewhat as he came to give more attention to economic theory. He was interested in a problem-solving problem which economic theory has not really encompassed as yet; consequently his remarks on hypotheses are frequently made as a part of his attempt to work out propositions of the means-consequence kind. But some such adjustments are a part of the growth of a viewpoint.

One of the distinctive aspects of Salter's conception of research method was his insistence upon the value of "case grouping." He was inclined to set case grouping off against the static cross-sectional statistical analysis. As I read logical theory, it seems to me that Salter here discovered in his own way a profound truth about inductive inference. The issue really is, how does one work out a system of classification—a set of relevant categories? Salter knew, and rightly too, that one must somehow use a basis of classification that is derived from the relation between a case and a problem. It is this relation which is the matrix of relevant classification. If one takes the problem of classification seriously, i.e. of defining the classes independently of the estimates of frequencies within classes, I submit he will use a case method somewhat like Salter suggested. In short, he recognized that the problem of induction is primarily that of working out the relevant classes.

If this is a reasonably correct interpretation of Salter's ideas it indicates that in his thinking on methodology he was both trying to improve the methodology of research and at the same time trying to shift the center of thought in economics to more of a problem-solving, planful-activity, orientation. There are suggestions, e.g., in his conception of a problem, where one may read out the implication that this positivistic science (a phrase Salter didn't use) is not really social science at all. There is much to be said for this view. At any rate if these suggestions are correct Salter was working toward the genuine frontiers of the unsolved problems in economic thought.

IV

I am quite aware of at least some of the risks one runs in making such suggestions as these. However, re-reading his work this

time has helped me to see his remarks in a larger context. I have been led to make these suggestions largely because the thesis was recognized by Salter to be unfinished; and these comments are to be taken as tentative remarks intended to help define the issues. He did not consider his dissertation ready for publication; rather as he explained the matter to me only shortly before his death, he hoped eventually to round out and publish a comprehensive treatise on methodology in the social sciences. Lynd's *Knowledge for What?* was something of a model for him. Fortunately, Leonard Salter was articulate and believed in writing out his ideas. As a consequence we have a rare record of a brilliant effort to analyze the puzzles of research methodology in economics.

KENNETH H. PARSONS

University of Wisconsin

The English Agricultural Act, 1947

ONE not familiar with English agricultural problems and England's recent experiences in the control and supervision of agricultural production, must approach a review of an act as broad and comprehensive as that passed by the British Parliament in August 1947 with some reservation. As in the case of most omnibus pieces of legislation, the Act is long—some 118 pages—is involved and detailed, and deals with many matters of administration. No attempt will be made here to go into the regulations necessary for its application in specific situations nor into the many provisions relating to methods by which agricultural policy is implemented. To most Americans, interest centers largely in the principal lines of action and the philosophy underlying the Act.

The objective of the English Agricultural Act is to promote and maintain a stable and efficient agriculture that can produce an increasing part of the nation's food and other agricultural produce needs at reasonable costs and with favorable income and living conditions for farmers and workers in agriculture. Emphasis is on increased production through efficiency and stability in agricultural operations. The continuing food emergency in England and the need for producing all the food reasonably possible so as to save the dollar exchange operated, no doubt, to strengthen the hand of the government in framing this Act.

One of the main methods of providing stability for agriculture is through guaranteed prices and assured markets, which are treated in Part I of the Act. As the framers evidently felt that assured prices and markets will not necessarily allocate resources and direct their use efficiently, even when supplemented by technical advice and educational programs, Part II of the Act provides standards of good estate management and good husbandry. If these standards are not adequately met, the right of supervision and the power of dispossession in the case of recalcitrant landowners and farmers may be invoked by the Minister of Agriculture and Fisheries (hereafter referred to as the Minister). Landlord and tenant relations are dealt with in Part III, which substantially strengthens the Agricultural Holding Act of 1923 in regard to compensation for improvements and disturbance, and in regard to security of tenure for tenant farmers. The next part treats of small holdings, and strengthens past legislation through provision for the establishment of economic operating units and their efficient operation. Part V deals with administrative and general matters, as for instance, administrative machinery, rights to buy, sell, and develop lands, and special grants to agriculture.

A brief but more specific analysis of the Act follows. Part I is in essence a forward pricing scheme for major farm products. On the

basis of statistics and other assembled data, the Minister is empowered to fix prices or set prices in relation to certain factors that condition prices. The actual price determination appears to be based on a number of factors, as a guaranteed fixed price, special benefit payments made in relation to a standard price, acreage payments, and calculated prices on the basis of costs. Price adjustments are made if the evidence assembled, after reviews and discussions with various farm organizations and farm groups, shows that there has been or is likely to be a change in the economic position of agriculture. In any event, farmers will know actual prices and other conditions of sale of both crops and animal products one year in advance of their production, while they will know the minimum prices of livestock and livestock products for two to four years ahead. Farmers are able to plan ahead insofar as planning is affected by prices, and to this extent they can increase the stability of agriculture and its operational efficiency. It is realized, however, that price policy in itself can give stability to agriculture and encourage efficient operations only as net incomes are increased or maintained.

Another underlying premise of the Act is that, through county committees, government supervision and control of agricultural units is necessary in order to insure the degree of efficiency required for increased production. Apparently it is felt that unrestrained interests of individual farmers may not be compatible with the social interests; and it is necessary for the government to retain the right to supervise or even take over farms or to terminate farm tenancies in certain circumstances; all subject, of course, to statutory safeguards.

A reasonable degree of efficiency is demanded in the management of agricultural lands and in farm operations. The owners of agricultural lands are required to manage their lands according to standards of good estate or farm management and tenants are required to farm in accordance with rules of good husbandry. Obviously, it was not possible in the Act to define definitively the standards for measuring reasonably efficient operations under the existing variety of conditions and circumstances. To decide what constitutes good farm management and good husbandry necessarily involves many judgment values, varied determinations, and the

application of rules of reasonableness.

But the Act does point out that owners of land are required to exercise their ownership rights in such a way as to enable a tenant to use the land with reasonable skill and in such a way as to maintain efficient production, as to both kinds and amounts of products produced. The determining factors to be considered in appraising the function of the owner are the extent to which he is providing, maintaining, and repairing fixed equipment on the land and is cooperating in maintaining a productive unit. In regard to a tenant, certain general determinations are set forth for judging standard of operations: for instance, the way in which arable land is cropped, cultivated, and conserved; the caring for and stocking of a farm where a system of farm practices requires livestock; the control exercised over disease and infestation by insects and other pests; and the manner of handling the crops that are harvested.

When an owner of land does not fulfill his responsibilities to the farm, for instance, by failing to maintain satisfactory fixed equipment, or when a tenant neglects his crops and follows wasteful practices, the Minister is empowered to place him under supervision. If an owner or tenant has been placed under supervision and then fails to show satisfactory improvement in management or farming practices, the government has the power to dispossess him. Dispossession of the owner is by government purchase of the land, and, if necessary, the government may buy other lands to make an efficient operating unit. Where a tenant has been dispossessed, the land may be farmed by the owner or by a new and approved tenant, or the Minister may operate the land directly.

Part III of the Act, dealing with the tenure of agricultural holdings, is closely related to the provisions in regard to good estate management and good husbandry in that, in order to fulfill the various responsibilities, it is necessary to make clear the rights and duties involved between landlords and tenants. The provisions in regard to landlord-tenant relations are additions or amendments to the Agricultural Holding Act of 1923, and relate to a considerable degree to a clarification and strengthening of the position of the tenant, because the tenant is a key person in implementing agricultural policy. The Act also deals with compensation from a tenant to a landlord for damages and any

other deterioration during the period of tenancy; it includes a right to increase rents where improvements made by the landlord result in substantial increase in farm production. A rather comprehensive code is laid down for compensation from a landlord to a tenant for improvements and disturbance; there is a strengthening of provisions for rewarding a tenant for increasing production or improving the productive capacity of a farm, and for giving a tenant rights against a landlord if he is disturbed by the landlord in following such a course. Illustrative of further steps taken to protect the tenant's rights is a provision to abolish the customary rights to compensation that a tenant may have in respect to crops grown, seeds sown, or other farm practices that would be of benefit to an incoming tenant, and the substitution therefor of statutory rights. The right of a tenant to compensation for disturbance by being forced to leave a farm is now further protected by the additional right to appeal to the Minister. A tenant is allowed to make long-term improvements against the wishes of the owner, provided authority to do so is obtained from the Minister. These are a few examples of the many amendments or additions to the Act of 1923 that were enacted to help carry out the purposes of the Act of 1947.

For a number of years England has had legislation dealing with small holdings or land settlement. The purposes of these laws have been to provide a means of satisfying land hunger, a method of rewarding men for military service, and a way of providing for unemployed persons. It is reported that a large proportion of the holdings so established are uneconomic units—too small, and farmed by persons who have not had previous agricultural experience. In view of this situation and the over-all purposes of the Agricultural Act Part IV is a thorough recasting of previous small-holdings legislation. The underlying principle guiding the government's present small-holdings policy is to establish holdings that are efficient and productive, and to provide an opportunity to well-qualified young men to begin an advance up the agricultural ladder. Such social considerations as providing farms for veterans or the unemployed are no longer requirements in the distribution of holdings.

In the acquisition of land for small holdings, consideration is to be given to the suitability

of the land for agriculture, the costs involved, and the effects of the project on the general interest of agriculture. Holdings will be available only to persons who have had sufficient agricultural experience and possess other capabilities to indicate that they have the qualifications necessary to become reasonably successful farmers on their own account. Preference is to be given to agricultural workers. As they are not likely to possess the capital necessary to begin farming even on a small scale, the government may lend up to three-fourths of the estimated working capital required for proper farming operations. Other provisions in the Act deal with the selling of small holdings and their management by county councils and the Minister.

Part V, devoted to administration, is primarily concerned with the mechanics of carrying out the program set forth by the Act. An agricultural Land Commission is established to manage farm land that is vested in the Minister and to advise and assist in matters relating to the management of agricultural lands. In each administrative county, except the County of London, there is established a County Agricultural Executive Committee to promote agricultural development and efficient production. Such committees already existed, for they were set up in 1939 in more or less their present form, but at that time they had wider powers under the Defense Regulations.

Although the ultimate authority for the administration of the Act rests with the Minister, the actual supervision is mostly decentralized and placed in the hands of these county committees which are given considerable discretionary powers. Therefore, a good farmer is almost always left alone to manage his farm within the general framework of stabilized markets and secure conditions of tenure; only the low-grade or unsuccessful farmers or landlords are actually subject to direct supervision. In the event of conflict of interests, an Agricultural Land Tribunal composed of, in addition to legal representation, representation of tenants and landowners, is created to handle such matters as arise from dispossession of owner or tenant and to pass on other directives issued under the Act in the interest of increased efficiency and stability in the use of land.

Broad powers are given to the Minister in the acquisition, development and management of land, in the readjustment of farm

boundaries, in making grants in the interest of land drainage, and in providing financial help to farmers in such matters as the obtaining of an adequate water supply, and the liming of farm lands.

At least two major observations on this Act, impress the reviewer: (1) The degree to which the government is involved in the management and use of land, and the extent to which this places restrictions or controls on the property rights of landlords; (2) the dependence on tenure controls and tenure arrangements, in addition to agriculture pricing policy and its accompanying mechanics, as instrumentalities in agricultural policy and programs.

It may be well to recall that two-thirds of the farmers in England are tenants and that they have had considerable security of tenure, so that the average length of tenancy is about 22 years. As previously pointed out, the attack by the Act on the need for increased production is through more efficient methods of production and emphasis on stability of tenure. The question might be raised as to the extent that stability of tenure and effi-

ency in production are compatible or, stated differently, whether stability of tenure might not often lead to inefficient production.

As the government assumes increasing control over the operation of farm units, it would appear that dynamic leadership must be assumed by the government in the interest of more efficient production. The enlargement of farm units, the modernization of farm plants, and the adoption of modern technological developments then rests to a large extent upon the initiative exercised by the government. With forward-looking and forceful policies framed and carried on by the government, the integration of price policy with tenure control and tenure arrangements should enable the farmers to produce more efficiently and to withstand better the shocks of fluctuating incomes that price policy in itself cannot avoid, and so give the stability to agriculture that is essential to progress in production and rural living.

V. WEBSTER JOHNSON

*Bureau of Agricultural Economics,
U. S. Department of Agriculture.*

Needed: A Method of Western Mountain Land Valuation

WHAT is the value of an acre of mountain land in the eleven western states? Valuations differ, of course, depending on who makes them. A cattleman or sheep rancher, under economic pressure to produce profitable beef or mutton or wool, can consider only the forage value of any one acre. An irrigation farmer may never set foot on that acre but he knows his livelihood is dependent upon its water-yielding capacity, and he values it accordingly. If there are trees on that particular acre, a lumberman will base its value on the standing timber. The urbanite places a value on the acre in terms of domestic water supplies, recreation, and water power, even if his valuation is a token one of turning on his water faucet, switching on his electric light, or unpacking a picnic lunch in a shady forest.

In the past, the user who got to the acre first used it fully according to his own interests. It did not matter too much to other users. They could push on to other acres and use them as they saw fit. There was

little conflict between competing interests.

Today, with an increasing population exerting more and more pressure on a slender total resource, all uses must be equated with one another to determine the most beneficial and equitable use for every acre of mountain land. An economic evaluation or "social accounting" of the land with respect to its different uses must be made in order to establish its proper place in our present-day economy. Sound land valuation based on a comparable evaluation of each use or function of the land is essential to proper management.

In many areas of the eleven western states the mountainous uplands are in federal ownership, although in certain localities appreciable acreages of private, corporate, and state land are found. An outstanding characteristic of these mountainous lands is their multiple use. The same acreage may have a number of uses combining two or more of the following: forage for domestic livestock, timber production, mining, recreation, (big-game hunting, fishing, dude ranching,

picnicking, winter sports, etc.); or supplying irrigation, domestic, or industrial water.¹

Despite this multiple use, no widely accepted method of valuation has been developed for these lands. Instead, the present practice is to evaluate separately each of the functions which mountain lands perform. Often these methods produce valuations which are incompatible. These methods are discussed in the paragraphs that follow, together with the shortcomings of each.

Range land capital values are determined by the usual method of capitalizing the difference between operating costs and gross income. A typical example of the use of this method is presented below.

Montana ranch studies indicate that the average annual gross income per animal unit of cattle is \$20.00. The annual costs and the residual amount available for land charges are shown in Table I. The \$4.00 residual is the amount available to pay the annual land charges such as interest and real estate taxes on the land used by one animal unit. Subtracting real estate taxes which comprise approximately one-third of the \$4.00, leaves \$2.67, the value differential attributed to the land as rent. Assuming 4 acres of range are required for one animal unit month the value differential is \$0.056 per acre. This annual rent per acre capitalized at 5 percent gives a land value of \$1.11 per acre.

This method produces a sound economic value for mountain range. It could be incorporated as part of the procedure for multiple land use valuation. However, since the economic value is usually lower than the sales or market value of range this method should not be incorporated with methods for other use valuations which yield market values.

Timber lands are valued largely on the basis of the standing timber, the land itself generally being considered of little or no value. The theoretical value of timber is "the residue left when the total cost of manufacturing and marketing the forest products fabricated therefrom plus a reasonable margin of profit is subtracted from the total price received from the sale of the manufactured forest products."² For example, an acre of ponderosa pine is estimated to produce 8,000 board feet of marketable timber. The prewar stumpage price per thousand board feet was \$2.50 per thousand.

¹ Mining is an irreplaceable resource and as such is not considered in this discussion. Forage for big-game is considered with big-game hunting.

TABLE I. ANNUAL GROSS INCOME AND OPERATING COSTS PER ANIMAL UNIT OF BEEF CATTLE.*

| | |
|--|---------|
| Annual Gross Income..... | \$20.00 |
| Labor (including family living)... | \$8.00 |
| General Expense..... | 1.75 |
| Feed and Salt..... | 1.50 |
| Depreciation on equipment & improvements..... | 1.00 |
| Interest on investment in cattle & equipment | 3.00 |
| Taxes on cattle and equipment.. | 0.75 |
| Total Cost, Less Land Charges..... | 16.00 |
| Residual Available for Land Charges.... | \$ 4.00 |

* Source: M. H. Saunderson, *Some Materials Relating to Livestock and Land Valuation*. Montana Ag. Exp. Sta. Mimeo publication. Undated.

This \$2.50 was determined by adding estimated average logging, milling, and selling costs plus a profit for the operator and deducting that sum from the selling price of the lumber. The timber on this acre of land would be worth \$20.00 (8 x \$2.50). The value of the timber is the residual or difference between the cost of production and the selling price. This method gives the value of the timber on the land but not the value of the land for growing timber. Since timber production is generally exploitative in that the timber has not been "grown," the term cost of production seems unjustified. Managers of western mountain land have no value of the land for producing timber crops because until very recently timber has not been "grown." The same situation is true to some extent for range land that has been exploited through use over and above that which will maintain the forage cover.

When young, immature timber is purchased the future value of the timber is estimated. The anticipated future timber value is discounted by the time required to mature the timber plus the costs of holding the land, such as fire protection and taxes. A "safety factor" is occasionally applied over and above the discounted interest. This procedure attributes no value to the land as a factor in the production of timber.

The recreational value of mountain land has seldom been evaluated in monetary terms because of its intangible values. However, four different ways have been suggested for evaluating "wild land" recreation.³ First, by determin-

² H. B. Steer, *Stumpage Price of Privately Owned Timber in the U. S.*, U. S. D. A. Tech. Bul. No. 626. July 1938.

³ U. S. Forest Service, Region 4, *Recreation Report*, Discussion Section, undated manuscript.

ing the number of people who visit these lands annually and assigning a value to the pleasure received. This would be an annual value and would have to be capitalized to determine the capital value. So far, we have no way of determining the value of pleasure. Second, by estimating the amount of money invested in recreation on these lands; this method would give only one item of recreational expense. Third, by estimating the taxable wealth produced by recreation use; this would result in merely an estimate of the annual income. Some estimates would have to be made of the costs involved in the production of this wealth and the difference capitalized. Fourth, by estimating the money spent by recreationists; this would be merely the annual gross income from recreation. None of these methods offer a satisfactory land valuation procedure since the land itself is considered to have no value and yet the land is the basis for such recreation.

Two methods have been used to assign a monetary value to big-game hunting and to compare it with the income from agricultural enterprises. Hunting costs in the west including such items as transportation, lodging, equipment, horse hire, hunting licenses, etc., have been compiled by State Fish and Game Commissions. These costs, amounting to around \$29.00 per hunter per season, are considered to be the value of hunting. However, this method has not been carried to the point of determining the value of land used by big game.

The value of private land for big-game hunting has been estimated on the basis of the sale of hunting privileges.⁴ On a 10,000-acre ranch a certain number of hunters may be sold the privilege of hunting deer. Assuming that hunting privileges are sold at \$3.00 per hunter day and 100 hunters hunt for 3 days each, the gross income from hunting would be \$900.00 ($\$3.00 \times 100 \times 3$ days). This would be a gross income per acre of 9 cents ($\$900.00 \div 10,000$). Deducting the costs involved would give the annual return to land which capitalized would be the capital value of the land for hunting. This appears to be a reasonable method for use on privately-owned land. The annual income from the sale of hunting privileges is comparable to the annual sale value of range cattle or sheep.

The recreational value of mountain land can be well illustrated by the use of community experiences at Snow Basin, Utah. Until 1940 this area of 7,000 acres in the Wasatch Mountains directly behind the city of Ogden was used for summer sheep range. The deteriorated condition of the watershed stimulated Ogden City officials and civic groups to purchase this land so as to preserve the watershed and provide recreation for the expanding city. (The value per acre for grazing was estimated to be \$5.00.) Part of this land is being developed into a recreational area. Six thousand picnickers can be accommodated each weekend day during the spring, summer and fall months. In the second winter of its operation, a municipal ski lift grossed \$20,000. The area is also a game preserve. Even though no monetary value has been determined, the high value of this land for recreation is readily apparent. How can its monetary recreational value be determined? No doubt a thorough analysis of the number of people using the area, the capital investments, monies expended by the using population, and other data would go a long way toward developing a sound valuation concept.

The value of watershed lands as a source of water for irrigation, power, and domestic use is an off-site value. That is, the value of the water produced is not reflected in the watershed but on land or a site some distance away. The cost of an acre foot of water to irrigated farms has been secured from various water companies but this cost is based on the service incident to placing the water in the farmers' ditches and is not the value of the water itself. The usual method of determining the value of watershed land has been to estimate the acres of watershed land required to produce one acre foot of water. The value of each acre foot of water is calculated by determining the difference in value per acre between irrigated crops and dry land crops. A brief description of this method will illustrate how it is used. Studies in Utah indicate that 7 acres of watershed land over 7,000 feet in elevation produce the water required for the intensive irrigation of one acre of cropland.⁵ One acre of irrigated land will produce crops worth \$55.00 per acre while an acre of dry farm land produces \$20.00 worth of crops, a

⁴ Miller and Powell, *Game & Wild Fur Production and Utilization on Agricultural Land*. U. S. D. A. Circular 636. January 1942.

⁵ This does not imply that lands below 7,000 feet in Utah are not important from the watershed standpoint but the major water-yielding lands usually start at this elevation.

difference of \$35.00 for irrigation. This means that the value of the water, less irrigation cost of \$15.00, is \$20.00 annually per acre ($\$55 - \$20 - \$15 = \20). Watershed lands above 7,000 feet can therefore be valued at \$2.86 annually per acre ($20.00 \div 7$). Capitalizing this annual value at 5 percent gives a capital value of \$57.00 per acre.

Some lands that have been grossly mismanaged may be considered to have a "negative" or "nuisance" value in their present condition. Where timbered mountain lands have been completely logged off or burned off by disastrous fires or where upland ranges have been seriously depleted by excessive use, silting and destructive floods frequently occur. The damage caused by these floods and by silting of reservoirs and canals is a very real cost to society. In most cases the return from these lands is nil or at least negligible and the cost of administration plus the damage to other resources creates a "negative" value.

The "negative" value per acre is generally determined in the following manner: Damages from floods and from silting of canals and reservoirs are obtained and totaled. This total cost is divided by the acreage of the flood- and silt-producing lands of the watershed which gives the damage cost per acre. This damage cost or "negative" value per acre is frequently high.⁶

Positive values are not restored until these lands are returned to some type of vegetative cover which prevents accelerated erosion. The investment which can be made for this purpose is generally the capitalized value of the average annual damage caused by these deteriorated lands.

Existing methods and concepts used in determining the value of mountain land for various uses are inadequate. To cope with the multiple land use valuation problem we need to develop up-to-date concepts on land value. It has only been within the last decade that the water-yielding and recreational uses or functions of mountain land have been fully appreciated. If we are to compare the several use values (multiple-use value) of a tract of land, then we must have a single income or valuation principle which will cover each land use. Existing theoretical valuation procedures were not designed to cover more than one use of a tract of land. Furthermore, they assume

the very maximum income from that one use, often to the point of abusing the land.

The valuation of land for other than "productive" factors poses many problems for the land economist.⁷ It is possible that definite monetary values cannot be assigned to recreational use of land since the returns from this use are so intangible. No general acceptance has been given to the method of valuing the watershed functions of mountain land described in this article. Irrigation companies selling water have assumed that usable water would always come from mountain land, hence they attached no value to these lands. Recently, however, an irrigation company in Idaho purchased much of the watershed lands from which the water they sell is secured. Undoubtedly this company must have developed some concept for valuation of these watershed lands.

In most instances the private land owner is interested in but one use of the land and the return to land—and hence its value—is from this single use. It is true that some lumber companies purchase timber land at slightly higher prices because they can sell the cut-over land to stockmen for grazing. In such cases token recognition is given to a secondary use but no attempt is made to manage the land for the forage crop. A private land owner cannot assign any value to a land use from which he secures or anticipates no returns.

Multiple-use management of land demands new valuation concepts and a sound method of land valuation. Managers of mountainous public land in the West are confronted with several uses of the same tract of land, each one vying with the other. These uses are represented by separate groups of interested taxpayers. Multiple use demands an evaluation procedure covering all the uses so that each may be assigned its proper position.⁸

Multiple-use management may result in a reduced annual return (and consequent lower capital value) for one individual use. But at the same time the total annual return from all the multiple-uses may be greater than from one individual use. The resulting capital value of the land will be greater under

⁷ Recreation is a production factor for dude ranches, ski resorts, hunting guides, etc., but not for the recreationist himself.

⁸ Some individuals question multiple use of the same tract of land. Actually, there is multiple use of land although certain uses may be curtailed so as to maintain other uses and secure the maximum return from the land.

⁶ This procedure does not include the less spectacular but more insidious and prevalent accelerated erosion which has a more serious "negative" effect on value than floods and silt.

multiple-use management. This capital value is dependent on first arriving at sound and comparable methods of evaluating each use. (If land managers capitalize the annual return to land from each use then they must apply uniform interest rates in order to have comparable capital values.)

It is difficult to evaluate use of land as a factor in production such as grazing with a nonproductive factor such as recreational use. Abundant data are available for land valuation in range livestock production; such data are not so available on the watershed functions of land and are practically nonexistent for recreational use—nonproductive use—of land. A severance value can be attached to use of mountain land for timber and grazing. This is not so for watershed and recreational

functions of mountain land. Theoretical or economic values of land for grazing frequently differ considerably from market values.

These and many other problems confront land economists. However, they have the resource, techniques, and perhaps even the data to attack the problems. They have a distinct opportunity to perform a service in the public interest. With this twofold challenge, land economists need only coordinated effort to evolve a sound method of multiple-use land valuation.

ARTHUR ROTH, JR.

*Intermountain Forest and Range Experiment Station,
U. S. Forest Service,
Ogden, Utah*

A Note on Mortgage Loan Interest

WHAT part of the consideration paid for the use of borrowed money is interest? The Bureau of Internal Revenue advises taxpayers to "be careful to distinguish between interest and other charges such as financing fees" in computing allowable deductions for payments on mortgage and instalment contracts. No one, so far as I know, has raised the fairly obvious objection that brokerage or financing charges on mortgage loans may be employed in lieu of higher contractual rates of interest. Indeed, financing costs may wipe out a considerable part of the gains realized by borrowers from the downward trend of interest rates.

In the case of the typical amortized loan, repayable in equal instalments, the only correct analysis of the cost of borrowing is to consider the principal of the loan as the amount actually put at the disposal of the borrower for at least one interest period. If the borrower signs a note for \$1,000 and receives the use of the full amount, the cost of borrowing is the rate designated in the contract, i.e., the nominal rate of interest expressed as a rate per cent per annum and applied to the monthly balances of principal at one-twelfth the annual rate. But under many mortgage-loan contracts the borrower never has the use of the full amount "borrowed." Practically speaking, the lender does not promise to lend \$1,000 and then withhold a portion of the principal sum promised to the borrower; but he might as well arrange the loan in this manner, for the fees, service charges, broker-

age, or commissions which the borrower is required to pay as a condition of closing the loan have exactly the same effect as a discount of the principal.

It is the purpose of this note to adapt the annuity principle to the opportunities offered borrowers in the mortgage-loan market. Instalment payments, consisting of unequal amounts of interest and of payments on principal, are analagous to terminable annuities: the borrower (like the insurance company) receives a principal sum which he (the company) contracts to pay back in a stated number of instalments (the annuity purchased), each payment consisting of interest on the outstanding balance of principal plus curtailment of the principal equal to the difference between the fixed instalment and the interest earned.¹

¹ A mortgage loan of \$1,000 for ten years at five per cent requires a monthly instalment of \$10.61. This is the monthly annuity purchasable by a single payment of \$1,000 when it is agreed that the payments shall continue for 120 months and that interest shall be computed at the rate of five per cent per annum. But a loan of \$1,000 at five per cent for 10 years which obligates the borrower to pay out \$25 in fees and other charges is in reality a loan of \$975. Since the annuity which \$975 will purchase is only 97.5% of the annuity purchased by \$1,000, the instalments demanded of the borrower of \$975 should be less than the instalments on a \$1,000 loan, the rate of interest remaining the same. If, however, the \$975 loan is assumed to bear a higher rate of interest than the rate stipulated by the lender, the instalments may rise to the same amount as required on a \$1,000 loan. In other words, requiring the borrower to pay on a \$975 loan the instalments required on a \$1,000 loan is tantamount to charging the borrower interest at a higher rate than is specified in the contract.

TABLE I. NET INTEREST RATES (PER CENT) ON AMORTIZED LOANS SUBJECT TO DISCOUNT BY REASON OF FINANCING CHARGES

| Nominal Rate Per Cent | Number of Monthly Payments | Charges, or Brokerage (Per cent of loan-contract principal) | | | | | | | | | |
|-----------------------|----------------------------|---|-----|-----|------|------|------|------|------|------|--|
| | | .25 | .50 | .75 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.00 | |
| 4.0 | 36 | 4.2 | 4.3 | 4.5 | 4.7 | 5.0 | 5.3 | 6.0 | 6.7 | 7.4 | |
| 4.0 | 60 | 4.1 | 4.2 | 4.3 | 4.4 | 4.6 | 4.8 | 5.3 | 5.7 | 6.1 | |
| 4.0 | 120 | 4.1 | 4.1 | 4.2 | 4.2 | 4.3 | 4.4 | 4.6 | 4.8 | 5.1 | |
| 4.0 | 180 | 4.0 | 4.1 | 4.1 | 4.1 | 4.2 | 4.3 | 4.5 | 4.6 | 4.8 | |
| 4.0 | 240 | 4.0 | 4.0 | 4.1 | 4.1 | 4.2 | 4.2 | 4.4 | 4.5 | 4.6 | |
| 4.5 | 36 | 4.7 | 4.8 | 5.0 | 5.2 | 5.5 | 5.9 | 6.5 | 7.2 | 8.0 | |
| 4.5 | 60 | 4.6 | 4.7 | 4.8 | 4.9 | 5.1 | 5.3 | 5.8 | 6.2 | 6.6 | |
| 4.5 | 120 | 4.6 | 4.6 | 4.7 | 4.7 | 4.8 | 4.9 | 5.1 | 5.4 | 5.6 | |
| 4.5 | 180 | 4.5 | 4.6 | 4.6 | 4.6 | 4.7 | 4.8 | 5.1 | 5.2 | 5.3 | |
| 4.5 | 240 | 4.5 | 4.5 | 4.6 | 4.6 | 4.7 | 4.7 | 4.9 | 5.0 | 5.1 | |
| 5.0 | 36 | 5.2 | 5.3 | 5.5 | 5.7 | 6.0 | 6.3 | 7.1 | 7.7 | 8.4 | |
| 5.0 | 60 | 5.1 | 5.2 | 5.3 | 5.4 | 5.6 | 5.8 | 6.3 | 6.7 | 7.2 | |
| 5.0 | 120 | 5.1 | 5.1 | 5.2 | 5.2 | 5.3 | 5.4 | 5.7 | 5.9 | 6.1 | |
| 5.0 | 180 | 5.0 | 5.1 | 5.1 | 5.2 | 5.2 | 5.3 | 5.5 | 5.7 | 5.9 | |
| 5.0 | 240 | 5.0 | 5.0 | 5.1 | 5.1 | 5.2 | 5.3 | 5.4 | 5.6 | 5.7 | |
| 5.5 | 36 | 5.7 | 5.8 | 6.0 | 6.2 | 6.5 | 6.9 | 7.6 | 8.3 | 9.0 | |
| 5.5 | 60 | 5.6 | 5.7 | 5.8 | 5.9 | 6.1 | 6.3 | 6.7 | 7.2 | 7.6 | |
| 5.5 | 120 | 5.6 | 5.6 | 5.7 | 5.7 | 5.8 | 5.9 | 6.2 | 6.4 | 6.6 | |
| 5.5 | 180 | 5.5 | 5.6 | 5.6 | 5.6 | 5.7 | 5.8 | 6.0 | 6.1 | 6.3 | |
| 5.5 | 240 | 5.5 | 5.5 | 5.6 | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 6.1 | |
| 6.0 | 36 | 6.2 | 6.3 | 6.5 | 6.7 | 7.1 | 7.4 | 8.1 | 8.8 | 9.5 | |
| 6.0 | 60 | 6.1 | 6.2 | 6.3 | 6.4 | 6.6 | 6.8 | 7.3 | 7.7 | 8.2 | |
| 6.0 | 120 | 6.1 | 6.1 | 6.2 | 6.2 | 6.3 | 6.5 | 6.7 | 6.9 | 7.2 | |
| 6.0 | 180 | 6.0 | 6.1 | 6.1 | 6.2 | 6.3 | 6.3 | 6.5 | 6.7 | 7.0 | |
| 6.0 | 240 | 6.0 | 6.1 | 6.1 | 6.1 | 6.2 | 6.3 | 6.5 | 6.6 | 6.8 | |

The table shows the relative significance of brokerage and commissions on loans for different terms and at various nominal rates of interest. All the interest rates found in the tables are *average* yearly rates; they apply only to loans which are amortized in the full number of periods indicated. The borrower who completes the payment of his mortgage note ahead of schedule will have paid an annual rate of interest somewhat higher than the table values, depending on the number of payments cancelled by the liquidation of the debt. At any given nominal rate, when the principal of the loan is discounted, the true average rate of interest diminishes with every increase in the term of the loan. Since financing charges and commissions are ordinarily based upon the size of

² E.g., a loan at 4.5% for 36 months, with brokerage amounting to .75% of the principal, yields an annual cost of 5%. With an income tax rate of 25%, applied to the contractual rate of 4.5%, the net cost to the borrower, after taxes, will be 3.875% ($5.0 - [4.5 \times .25]$). The borrower who pays no brokerage will have the same net cost, after taxes, if his contract rate is fixed at 5.167% (3.875×1.33).

the loan and not upon the number of years to maturity, the borrower would in effect "save money" by electing to have the schedule of payments extend over as many years as possible. He would, of course, give some consideration to the psychological advantages of "getting out of debt" as soon as possible.

The table may be applied to cases of refinancing. Refinancing charges are likely to be relatively high; and a new loan offer should not be accepted unless the average annual cost, as shown by the table, is less than the average rate on the old loan. When refinancing is involuntary or recommended by the necessity of reducing the monthly payments, the new loan cannot be directly compared with the old loan, since the new loan will ordinarily extend over a longer term than the balance of the time period in the old loan. But various opportunities for refinancing may be compared *inter se*.

Although brokerage and discounts are in effect hidden interest costs, they cannot be construed as interest payments under the present income-tax laws. Other things equal, the tax-wise borrower would prefer institutions which do not collect brokerage and other service fees. Tables such as the one furnished here would help him locate the point at which the tax deductions for explicit interest payments offset the apparent saving in interest charges when a part of the cost of the loan has been shifted to initial brokerage and fees.²

Another conclusion should be obvious from the table. Lenders of mortgage money could reduce stated interest rates to extremely low levels; but the reductions would represent no savings to borrowers if accompanied by larger fees and commissions. No reduction in nominal rates can be regarded as a boon to mortgage borrowers unless the charges incidental to making the loan remain constant or decrease.

ROBERT S. SMITH

Duke University

The United Nations and Changing Land Use in a Metropolis

WHEN in December 1946, the decision was made to build the United Nations headquarters in the heart of Manhattan along New York City's East River, the

average citizen of the metropolis was astounded. His newspapers had been telling him of the search of the United Nations site committee, which had extended from New

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York State's Westchester County to California's San Francisco. However, the offer by Mr. John D. Rockefeller, Jr., of the seventeen acres of land in the center of Manhattan made all the previous planning of the site committee an academic gesture. After only 36 hours of deliberation, the offer was accepted; in April 1947, Trygve Lie, Secretary General of the United Nations, received the deed to the land from William O'Dwyer, Mayor of the city of New York.

Seventeen acres of land plus additional parcels contributed by New York City, a total of approximately six city blocks (extending from 42nd Street to 48th Street along the East River), is only a small section of land compared with the other sites which had been contemplated. Each of the other areas considered as possible headquarters represented at a minimum seventy-five times as much space as the seventeen acres in the Rockefeller grant. The earlier objective had been a more or less self-sufficing community with low buildings in spacious surroundings; the new goal was a United Nations headquarters as an integral part of the City of New York. The latter necessitated a major change in land utilization for an area in New York City accommodating primarily meat packing establishments, lofts, and a few scattered tenement houses.

Three Centuries of Land Use

During three centuries, successive major land use changes have taken place in this area. At the beginning of the seventeenth century, the present site of the world capital was the farm of George Holmes and Thomas Hall, two Englishmen, who received the grant of land in 1639 from the Dutch. Called Turtle Bay Farm (a corruption of the Dutch word *Deutel*), it was operated for a few years as a tobacco plantation.¹ By the time of the American Revolution, the neighborhood had changed sufficiently to include grist mills, warehouses, and a boat building plant.

In pre-Civil War days, "Paddy Corcoran's Roost," a shanty colony concentrated largely on Prospect Hill above 42nd Street, overlooked the southern section of what is now the United Nations site. By the latter part of the nineteenth century, single-family dwellings had been supplanted by multi-family

structures. Built before the New York State Tenement House Law of 1901, these accommodations were without adequate light, air and sanitation. During the nineteenth century, they were the habitat of the Irish, Germans, Austrians and other north Europeans; by the twentieth century these had been displaced largely by south Europeans.

In the early part of the twentieth century, the section again changed in character. The land, considered too valuable for tenement use became the locale of the slaughter houses and, just south of the abattoirs on 41st Street and the East River, the New York Edison generating plant.

High land values which had dictated industrial use for the area soon to be supplanted by the United Nations' headquarters, indicated high rental housing in adjacent sections. On Prospect Hill, overlooking the East River at 42nd Street, old law tenements and the old brownstone single-family dwellings gave way in 1927 to Tudor City, a housing development of twelve skyscraper buildings accommodating 6,500 people. To the north of the present United Nations' site, more old law tenements were swept away and Beekman Place and Sutton Place achieved smart residential status. Thus as early as 1930, both the areas to the north and to the southwest of the present United Nations' site had achieved Grade A residential status.

The upswing in the character of the area was given additional impetus in 1940 when the East River Drive, with intermittent park spaces, was constructed. The plans of the real estate firm of Webb and Knapp, Inc., of New York City, indicated more recently that the blocks along the waterfront between 42nd and 48th streets were ripe for change. They had assembled a tract larger than the 17 acres later acquired by Mr. John D. Rockefeller, Jr., and had planned to develop it as a skyscraper community, including fifty-story office structures and thirty-story apartment buildings. Mr. Rockefeller's offer and its acceptance shelved these earlier plans of urban redevelopment but the real estate firm plans to utilize the land which it still owns and has talked tentatively of an airline terminal, an opera house and a hotel to be built in proximity to and in harmony with the United Nations development.

¹United Nations Department of Public Information, "New York City Chosen for Permanent Headquarters," *Weekly Bulletin*, Vol. 1, No. 21, Dec. 24, 1946, p. 33.

"The United Nations Site Through Three Centuries," *Tudor City View*, January 1947, p. 7.

Land Assembly

Because Webb and Knapp had assembled the site for a skyscraper community, this complicated procedure did not have to be undertaken again for the United Nations. In other words, the land was already "packaged." However, Mr. Rockefeller's \$8,500,000 gift was made with a number of provisos, one of which was that the streets included within the area were to be given to the United Nations by the city of New York. Since the area is subjected to the standard gridiron plan of street development in New York City, redevelopment necessitated a replanning of streets. The city also had to agree to give to the United Nations parcels of land essential to rounding out the site, including a playground on 42nd Street and a strip of land 40 feet wide along Franklin D. Roosevelt Drive facing the East River. The United Nations also obtained the exclusive right to the waterfront along the East River. For its part, the United Nations agreed to pay for the cost of reconstructing the Franklin D. Roosevelt Drive and its approaches adjacent to the site.

Although the United Nations has not the right to use condemnation to acquire land directly, this does not prevent New York City from transferring land to the United Nations that has been acquired by this method. The law also stipulates that the world organization may obtain additional territory in the future through gift, grant, devise or purchase. Governor Dewey was authorized to cede any jurisdictional rights that New York State might have in the present site and it was made a matter of legislative determination that "a public purpose is served" when New York City grants land to the United Nations.²

It might well be argued by constitutional lawyers that much of the new legislation is superfluous; earlier legal decisions in New York State may be interpreted to imply that land used for the headquarters of the United Nations constitutes a public purpose. However, state and city officials, wary of potential taxpayer suits, are allowing no loopholes for judicial intervention.

Tax Exemption

In addition to the grants of land from the city, the Rockefeller gift carried the proviso

of exemption from taxation, federal, state and local—which was accepted by the various levels of government. At the federal level, Congress passed a law which enabled the grant of land to be made free from the gift tax.³

New York State passed a series of laws providing for tax exemption of real property and waiving of special assessments. The annual loss to the city from the tax exemption of the land included in Mr. Rockefeller's gift is \$245,777. However, it is contemplated that increases in land values in the area adjacent to the United Nations will yield some compensatory tax revenues. The state has also exempted all non-nationals employed by the world organization from its income tax.⁴

Zoning

Changing land use, not only for the United Nations' site but for the land adjacent and in proximity, has necessitated revision of the zoning regulations applicable to the area. The site itself, previously in an "unrestricted district," is now in a "restricted retail" district. This means that stores and shops will be permitted on the ground level of buildings but such uses as will cheapen the neighborhood are excluded, e.g., dance halls other than in hotels, shooting galleries, etc. The change in the zoning restrictions is also applicable to land surrounding the site. The public hearings of the New York City Planning Commission were indicative of the most recent thought of both property interest groups and civic-minded organizations. The general reaction, with the exception of a few individuals who opposed the restrictions as applied to specific pieces of property, was that the proposed regulations on height, use and area did not go far enough. In a number of instances civic groups asked for an over-all plan and restrictions of wide scope to assure a worthy setting for the United Nations.

Resident Status of the United Nations. A convention or treaty between the United Nations and the United States was thought desirable to delineate further the resident status of the world organization. Much that was included within the convention had been achieved previously by legislation but the Convention both lends additional dignity to the relationship and creates a moral obliga-

² New York State, Senate Int. No. 1302, 1305, Feb. 10 1947.

³ H. J. Res. 121, 80th Cong. 1st Sess., Feb. 12, 1947.

⁴ New York State, Senate Int. No. 2490, March 3, 1947 and Senate Int. No. 1304, Feb. 10, 1947.

tion of the United States to adhere to the provisions.⁵

Headquarters in Progress

By April 1948, the meat packing establishments, lofts and tenement houses originally on this site, were still in process of demolition. The world organization was financing the removal of the few residents living in the area. Wallace K. Harrison, co-designer of Rockefeller Center, and Director of Planning for the project, has assisting him a ten-member board of design consultants from countries in the United Nations as far apart as Australia and the U.S.S.R.⁶

International cooperation in planning for the world organization headquarters may be contrasted with the experience with the League of Nations Palace at Geneva. There 10,000 separate plans were submitted to an international jury in 1927; nine years later the building was completed. In contrast, one plan arrived at cooperatively has been evolved for the United Nations; the schedule for completion is in terms of months rather than years. The overall plan contemplates several skyscrapers, functional in design, with space allotted on the basis of the needs of the various countries within the United Nations. Plans for a building program suffer from two major drawbacks, both financial: In common with all other builders in the United States today, the United Nations is facing rapidly increasing building costs; and in addition the dilemma of dollar shortages is plaguing most of the member countries of the world organization. The various countries are finding it difficult to meet their quotas; therefore the United States has advanced the money for most of the construction costs.

⁵ "The United Nations Under American Municipal Law—A Preliminary Assessment," *Yale Law Journal*, June 1946, p. 782.

⁶ Ruth G. Weintraub and Rosalind Tough, "New York Prepares for the United Nations," *The American City*, May 1947, pp. 67-71.

⁷ The number of people questioned in each borough was determined by borough population figures as shown in the latest census. Thus, Staten Island with less than 200,000 of New York City's 7,000,000 people, contributed only forty-two of the total sample of 1341 interviews. To insure a representative cross-section of New York opinion, it was necessary to decide on which blocks within each borough persons from different socio-economic groups were to be found. This was done by taking a selection of blocks which would assure proportionate representation of dwellers from low, medium and high rental levels (i.e. under \$30, \$30-\$49, and \$50 and above, respectively.) To insure proper

New Yorkers' Reaction

Since it is believed that the reaction of New York residents to the project is of major interest a stratified sampling of public opinion has been made. Within a period of six weeks, in April and May of 1947, 1341 persons living in New York City were interviewed.⁷ Gathered by interviews with people selected from as far apart as upper Manhattan's Riverdale and the southern shore of Staten Island, New York City's Chinatown and Harlem, the Negro metropolis, it represents the opinions of the occupants of all grades of housing from the penthouse to the cold water tenement.

The survey sampled New York opinion on two basic questions: (1) Did you want the United Nations to locate here; (2) New York City is planning to give the United Nations freedom from taxes on both land and buildings; what is your reaction?

In answer to the question: Did you want the United Nations to locate in New York City, 70.7 per cent of 1341 persons interviewed, answered in the affirmative.

However, people in Queens were less enthusiastic about the United Nations locating in New York City than were those in other boroughs; only 61.3 per cent of the answers in this borough were favorable.

The less cordial response of Queens may be attributed to some or a combination of all of the following factors. The temporary headquarters at Lake Success are located within this borough and the needs of the personnel for housing have contributed to the housing shortage in a borough which was suffering severely from lack of housing accommodations. Further, Queens with a high proportion of home owners is peculiarly sensitive to anything which affects the tax structure.

The United States Census reports that 77 per cent of the residents of Queens are native born compared with 65 per cent for New York City as a whole. With fewer roots in

representation of the Negro population, blocks in which Negroes predominate were selected in a proportionate number of cases. Two thirds of the people were questioned in their homes; one third were questioned on the street running between the selected blocks. To attempt to secure adequate male representation, some interviewing was done in the evening and on Sundays. Only adults, 20 years of age or above, were interviewed. Dr. Charles L. Vaughn, Assistant Director of Market Research of the Psychological Corporation, advised on the construction of the stratified sample.

Estimated Civilian Population of the United States by Counties, November 1, 1943, Bureau of the Census, February 1944, p. 18.

Europe, they may be somewhat less internationally-minded.

Local pride was important. The most frequent reason given by persons interviewed was "New York City is the logical site." Next in importance, "good for business" was voiced frequently by men interviewees, regardless of the borough. A general feeling that it was desirable for the United Nations to come to the metropolis was evidenced by many who were unable or unwilling to offer a specific reason for their favorable attitudes.

High density of population coupled with an acute housing shortage appeared to be responsible for unfavorable attitudes. The two reasons most often given in opposition were "too congested" and "apartments are too scarce." An attitude far from encouraging was voiced with surprising frequency. "The United Nations is a failure." This was offered as justification for lack of willingness to have the world capital accommodated in New York City.

A variety of other explanations were offered in opposition. They included: "Other sites are available;" "It will cost the United States too much to have the United Nations in the City;" "There will be an excess of political pressure;" "Geneva is a better place than New York City for the United Nations;" "Washington, D. C. would be preferable;" and "The building materials are needed for housing."

New Yorkers, cordial about the United Nations coming to their community, display much less enthusiasm about assuming any of the financial burden. Only 52.3 per cent of the 1341 persons interviewed approved of tax exemption on land and buildings compared with 70.7 per cent in favor of the United Nations locating in New York City. Queens was again less enthusiastic than the city as a whole with only 47.8 per cent of the people favoring tax exemption.

Opposition to tax exemption fell into two major categories; fear of increased taxes and antagonism to the concept of the United Nations. Such statements as "taxes are high enough;" "The United Nations should pay taxes like everybody else;" "We don't want rents raised" were typical of the first group. The more basic opposition was illustrated by occasional statements that "the United Nations is unsuccessful anyway."

Among the 52.3 per cent in favor of tax exemption, many recognized the general principle that property used for philanthropic

purposes in New York City is tax exempt and that the United Nations property should come within the general principle. The need of the world capital for financial aid was given as an additional argument for tax exemption.

The Future of Land Use

Land adjacent to the site has skyrocketed in price; plans are being made to change the character of utilization of the area. Where, up to the present, warehouses, lofts and tenements had stood, there will be expensive elevator apartment buildings and commercial developments.

Many of the "smart shops" are now located on upper Fifth Avenue (the Rockefeller Center section and above) whereas they were previously south of Forty-Second Street. It is possible that the United Nations headquarters may be a magnet which will exert an eastern pull and cause some of the exclusive business which might have had to move north to have a second choice of location.

The effects of the United Nations headquarters on land utilization, however, will depend in no small degree on the extent to which the United Nations community becomes integrated with the larger whole. The approximately 30 per cent opposition expressed by the small sample of New Yorkers interviewed and the still greater resistance to tax exemption would seem to indicate a challenge. The New Yorker needs to become intelligent about the world organization, if he is to consider it an essential part of his home town. Effort will need to be expended to attract New Yorkers to the United Nations headquarters to observe a world capital in action. It is not enough that the out-of-town resident visit the headquarters and that the diplomats from the nations' capitals transact business on the site. A world community, even in the center of a metropolis, may easily become isolated. That the people of New York identify their community with the United Nations is of primary significance both to the city and the world organization. The metropolis cannot afford to have a discrete unit within its boundaries. In turn, the United Nations headquarters along Manhattan's East River may be able to reach fruition more easily if it becomes an integrated part of the world's largest city.

ROSALIND TOUGH
RUTH G. WEINTRAUB

*Associate Professors
Hunter College*

Public Utility Financing in the First Quarter of 1948

TOTALING some \$713 million the offerings of public utility securities during the first quarter of 1948 exceeded those of the same period in 1947 by \$264 million. This total, however, was \$278 million short of the record high fourth quarter of 1947. Latest indications are that these totals will continue to rise as the electric industry continues its \$5-\$6 billion postwar expansion program. Included in the 1948 figures were the common stock offerings taken in toto by holding company parents of the operating electric utilities. Not included, however, were contributions by the holding companies to their subsidiaries. Such contributions are sometimes made in lieu of additional common stock financing and they have the effect on the books of the operating companies of increasing the stated value of the common stock already outstanding in the hands of the parent. There were six serial issues of over five years in the quarter. These totaled \$34,095,000 principal amount and five of them were placed privately. They were: \$3,000,000 Ohio Public Service Company, $2\frac{1}{2}$ - $2\frac{3}{4}$ %, privately placed in January; \$4,000,000 Baltimore Transit Company, 3% equipment trust notes, privately placed in March; \$600,000 Black Hills Power & Light Company $3\frac{1}{4}$ % serial notes, privately placed in March; \$6,400,000 Panola Gas Company 3.5% semi-annual loan, privately placed in March; the \$295,000 Trailways Service, Inc. $4\frac{1}{2}$ % first mortgage bonds offered publicly in March; and the \$20,000,000 Cities Service Gas Company $3\frac{1}{8}$ % first mortgage bonds placed privately in March.

Table I shows the public-utility long-term debt issues offered publicly during the quarter. It is significant to note that the four electric utilities offering debentures also offered mortgage bonds. The use of such unsecured debt issues, though not especially favored by the Securities and Exchange Commission, is permitted by the Commission in lieu of preferred stock issues or mortgage bond issues when the market is not favorable to the use of the former and when added mortgage debt would jeopardize mortgage debt to net property ratios prescribed by the Commission.

¹See, for example, S. E. C. approval of the recent financing program of Texas Electric Service Company, S. E. C. Holding Company Act Release No. 8059, March 19, 1948.

When permitted, however, such debenture issues usually provide adequate protection to investors by including in the debenture agreement provisions restricting payment of common stock dividends and establishing sinking funds.¹

Following the pattern set in 1947, the largest issues were those offered by members of the telephone industry, namely, the \$75 million Pacific Telephone and Telegraph Company issue and the \$60 million New York Telephone Company issue. The weighted average of offering yields of the long-term debt issues offered publicly was 3.15%. This was a higher average than any of 1947. The \$25 million Philadelphia Electric Company $2\frac{7}{8}$ % First & Refunding issue offered at 99.25 to yield 2.91% was the lowest yield issue as well as the issue resulting in lowest cost to company. Even this lowest "true cost to company" figure, however, did not approach the previous lows of 1946 and 1947. While the offering yields, as an average, were somewhat higher than those of 1947, the weighted average of underwriters' commissions remained on the 1947 level, at .628%. The range of the underwriters' commissions was from .161% for the \$40 million Southern California Edison Company $3\frac{1}{8}$'s of 1973 to 5% for the Northeastern Water Company Sinking Fund Collateral Trust 5's of 1968. Whether this latter figure resulted from the fact that the holding companies in the water industry are not subject to competitive bidding rules with respect to security issues or from the quality of the issue is a matter of interesting and possibly fruitful conjecture. It seems odd that the federal government has not seen fit to extend to the holding companies in the water-supply field the regulations and restrictions that have become commonplace in other sectors of the utility industry.

Estimated incidental expenses incurred in offering long-term debt issues publicly were higher in the first quarter of 1948 than at any time in 1947. Similarly, the upward trend in the true or effective cost of capital continued in the opening months of 1948. The 3.16% weighted average for this final item was higher than in any of the 1947 quarters.

Table II presents the long-term debt issues offered privately. Columns (H), (I), and (J) have been added in this quarter's summary

TABLE I—SUMMARY AND ANALYSIS OF PUBLIC UTILITY LONG-TERM DEBT ISSUES OFFERED PUBLICLY, FIRST QUARTER, 1948

| Company and Issue | Cou- pon Rate | Principal Amount | Ma- turity Date | Month of Offering | Offering Price | Offer- ing Yield | Under- writers' Com- missions (H) | Gross Pro- ceeds to Company (I) | Esti- mated Incidental Ex- penses (J) | Net Pro- ceeds to Company (K) | True Cost to Company (L) |
|--|---------------------|---------------------|-----------------------|----------------------|-------------------|------------------------|--|--|---|---|-----------------------------------|
| (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (I) | (J) | (K) | (L) |
| BONDS | | | | | | | | | | | |
| Central Illinois Public Service Co. | % | \$ | | | % | % | % | % | % | % | % |
| First Mortgage, Series B..... | 3½ | 10,000,000 | 1977 | January | 102.365 | 3.25 | .660 | 101.705 | .600 | 101.105 | 3.37 |
| Dayton Power and Light Company | | | | | | | | | | | |
| First Mortgage..... | 3 | 8,000,000 | 1978 | January | 100.750 | 2.96 | .610 | 100.140 | .830 | 99.310 | 3.03 |
| New York Telephone Company | | | | | | | | | | | |
| Refunding Mortgage, Series E..... | 3½ | 60,000,000 | 1978 | January | 101.430 | 3.05 | .580 | 100.85 | .850 | 100.000 | 3.13 |
| Northwestern Water Company | | | | | | | | | | | |
| Sinking Fund Collateral Trust..... | 5 | 10,000,000 | 1968 | January | 100.000 | 5.00 | 5.000 | 95.00 | 1.223 | 93.777 | 5.62 |
| Potomac Edison Company | | | | | | | | | | | |
| First Mortgage and Col. Trust..... | 3½ | 4,000,000 | 1978 | January | 100.486 | 3.10 | .167 | 100.319 | 1.549 | 98.770 | 3.19 |
| Potomac Electric Power Company | | | | | | | | | | | |
| First Mortgage..... | 3 | 15,000,000 | 1986 | January | 100.990 | 2.95 | .539 | 100.451 | .601 | 99.850 | 3.01 |
| Public Service Company of N. H. | | | | | | | | | | | |
| First Mortgage, Series C..... | 3¼ | 3,000,000 | 1978 | January | 102.915 | 3.10 | .785 | 102.130 | .980 | 101.141 | 3.19 |
| Southern California Edison Company | | | | | | | | | | | |
| First and Refunding Mortgage..... | 3½ | 40,000,000 | 1973 | January | 102.187 | 3.00 | .161 | 102.026 | .536 | 101.490 | 3.04 |
| Illinois Power Company | | | | | | | | | | | |
| First Mortgage..... | 3½ | 15,000,000 | 1978 | February | 100.485 | 3.10 | .335 | 100.150 | .760 | 99.390 | 3.16 |
| Iowa Power and Light Company | | | | | | | | | | | |
| First Mortgage..... | 3 | 6,000,000 | 1978 | February | 100.990 | 2.95 | .480 | 100.510 | 1.480 | 99.030 | 3.05 |
| Ohio Public Service Company | | | | | | | | | | | |
| First Mortgage..... | 3½ | 10,000,000 | 1978 | February | 100.750 | 3.00 | .490 | 100.260 | .830 | 99.430 | 3.15 |
| Ohio Rapid Transit Company | | | | | | | | | | | |
| First Mortgage and Col. Trust..... | 4½ | 500,000 | 1963 | February | 100.500 | 4.45 | a | a | a | a | a |
| Philadelphia Electric Company | | | | | | | | | | | |
| First and Refunding Mortgage..... | 2½ | 25,000,000 | 1978 | February | 99.250 | 2.91 | .610 | 98.64 | .630 | 98.010 | 2.98 |
| Tampa Electric Company | | | | | | | | | | | |
| First Mortgage..... | 3 | 6,000,000 | 1978 | February | 100.970 | 2.95 | .681 | 100.239 | .799 | 99.490 | 3.03 |
| California-Cregon Power Company | | | | | | | | | | | |
| First Mortgage..... | 3½ | 4,500,000 | 1978 | March | 101.000 | 3.07 | .469 | 100.531 | a | a | a |
| Interstate Power Company | | | | | | | | | | | |
| First Mortgage..... | 3½ | 20,000,000 | 1978 | March | 102.720 | 3.60 | 1.000 | 101.720 | a | a | a |
| Kansas Gas and Electric Company | | | | | | | | | | | |
| First Mortgage..... | 3½ | 5,000,000 | 1978 | March | 101.250 | 3.06 | .530 | 100.720 | 1.300 | 99.420 | 3.16 |
| Louisville Gas and Electric Co. (Ky.) | | | | | | | | | | | |
| First and Refunding Mortgage..... | 3 | 8,000,000 | 1978 | March | 100.990 | 2.95 | .306 | 100.684 | .804 | 99.880 | 3.01 |
| Louisville Power and Light Company | | | | | | | | | | | |
| First Mortgage..... | 3½ | 10,000,000 | 1978 | March | 100.485 | 3.10 | .194 | 100.291 | .851 | 99.440 | 3.15 |
| Ohio Power Company | | | | | | | | | | | |
| First Mortgage..... | 3 | 40,000,000 | 1978 | March | 100.990 | 2.95 | .460 | 100.530 | .420 | 100.110 | 2.99 |
| Public Service of Oklahoma | | | | | | | | | | | |
| First Mortgage..... | 2½ | 10,000,000 | 1978 | March | 97.540 | 3.00 | .207 | 97.333 | .603 | 96.730 | 3.04 |
| San Diego Gas and Electric Company | | | | | | | | | | | |
| First Mortgage..... | 3 | 10,000,000 | 1978 | March | 101.390 | 2.93 | .577 | 100.813 | .523 | 100.290 | 2.99 |
| Southwestern Gas and Electric Co. | | | | | | | | | | | |
| First Mortgage..... | 3½ | 7,000,000 | 1977 | March | 101.467 | 3.05 | .397 | 101.070 | .710 | 100.360 | 3.11 |
| Texas Electric Service Company | | | | | | | | | | | |
| First Mortgage..... | 3 | 5,000,000 | 1978 | March | 101.190 | 2.94 | .320 | 100.870 | 1.000 | 99.870 | 3.01 |
| Utah Power and Light Company | | | | | | | | | | | |
| First Mortgage..... | 3½ | 3,000,000 | 1978 | March | 101.467 | 3.05 | .337 | 101.130 | .870 | 100.260 | 3.11 |
| Virginia Electric Power Company | | | | | | | | | | | |
| First Mortgage..... | 3 | 10,000,000 | 1978 | March | 100.990 | 2.95 | .308 | 100.682 | a | a | a |
| West Penn Power Company | | | | | | | | | | | |
| First Mortgage..... | 3 | 12,000,000 | 1978 | March | 101.190 | 2.94 | .471 | 101.719 | .749 | 99.970 | 3.00 |
| Wisconsin Power and Light Company | | | | | | | | | | | |
| First Mortgage..... | 3½ | 3,000,000 | 1978 | March | 102.460 | 3.00 | .460 | 102.010 | .900 | 101.110 | 3.07 |
| DEBENTURES | | | | | | | | | | | |
| Eastern Gas and Water Invest. Co..... | 5½ | 125,000 | 1978 | February | 100.000 | 5.50 | a | a | a | a | a |
| Columbia Gas and Electric Corp..... | 3½ | 45,000,000 | 1973 | March | 101.250 | 3.18 | .690 | 100.560 | .370 | 100.190 | 3.24 |
| Interstate Power Company..... | 4½ | 5,000,000 | 1968 | March | 100.000 | 4.75 | 1.000 | 99.000 | a | a | a |
| Laclede Gas Light Company (e)..... | 4½ | 6,084,000 | 1963 | March | 100.000 | 4.50 | a | a | a | a | a |
| Pacific Telephone and Telegraph Co..... | 3½ | 75,000,000 | 1978 | March | 102.750 | 3.11 | .670 | 102.080 | a | a | a |
| Texas Electric Service Company..... | 3½ | 5,000,000 | 1973 | March | 102.125 | 3.13 | .736 | 101.389 | .999 | 100.390 | 3.23 |
| Utah Power and Light Company..... | 3½ | 3,000,000 | 1973 | March | 101.675 | 3.40 | .877 | 100.798 | .998 | 99.800 | 3.51 |
| Virginia Electric and Power Co. (e)..... | 3½ | 11,753,800 | 1963 | March | 100.000 | 3.13 | a | a | a | a | a |
| Total or Weighted Average (b)..... | | 510,962,800 | ..... | ..... | 101.268 | 3.15 | .628 | 100.763 | .696 | 99.752 | 3.16 |

(a) Information not available.

(b) Included in each final figure is the maximum amount of information available.

(c) Convertible debentures offered for subscription by stockholders.

and analysis. On the basis of information available for six issues, it was possible, therefore, to compare estimated incidental expenses, net proceeds to company, and true cost to company with those of publicly-offered issues. Volumewise, long-term debt offered privately exceeded by \$36 million that offered during the first quarter of 1947. There were, moreover, no unusually large issues. The offering yields ranged from 2.88% to 3.50% with 3.05% as the weighted average for eight issues. The weighted average of estimated incidental expenses based on six issues was only 1/10 of 1% higher than the similar figure for publicly-offered issues. The true cost-to-company weighted average was also close to the corresponding publicly-

offered average. At 3.11%, however, it was a shade lower, indicating that on the basis of the information available, it was a little cheaper for the utility companies to continue to offer long-term debt issues privately.

Table III presents a summary and analysis of preferred stock issues offered both publicly and privately. The issues were too few in number to warrant making two tables as was done in the case of long-term debt. By including information on underwriters' commissions and estimated incidental expenses where available, it was possible to make comparisons with expenses incurred in floating common stock issues.

The expense items have also made possible the computation of gross proceeds to com-

TABLE II—SUMMARY AND ANALYSIS OF PUBLIC UTILITY LONG-TERM DEBT ISSUES OFFERED PRIVATELY, FIRST QUARTER, 1948

| Company and Issue | Coupon Rate | Principal Amount | Maturity Date | Month of Offering | Offering Price | Offering Yield | Est. Incidental Expenses | Net Proceeds to Company | True Cost to Company |
|---|-------------|------------------|---------------|-------------------|----------------|----------------|--------------------------|-------------------------|----------------------|
| (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (I) | (J) |
| | | \$ | | | % | % | % | % | % |
| Lincoln Telephone and Telegraph Co. First Mortgage | 2½ | 1,000,000 | 1976 | January | 99.89 | 2.95 | a | a | a |
| New England Gas and Electric Company 20-Yr. S. F. Collateral | 3½ | 5,225,000 | 1968 | January | 100.00 | 3.25 | 0.40 | 99.60 | 3.28 |
| Public Service Company of New Mexico First Mortgage | 3½ | 1,000,000 | 1978 | January | 100.00 | 3.38 | 1.08 | 98.92 | 3.43 |
| Birmingham Electric Company First Mortgage | 3½ | 1,000,000 | 1977 | January | 99.52 | 3.15 | 1.45 | 98.07 | 3.23 |
| Birmingham Gas Company First Mortgage | 3½ | 1,000,000 | 1971 | February | 100.00 | 3.50 | 0.50 | 99.50 | 3.53 |
| Central Ohio Light and Power Company First Mortgage | 2½ | 500,000 | 1977 | February | a | a | a | a | a |
| Community Public Service Company S. F. Debentures | 3½ | 2,000,000 | 1968 | February | a | a | a | a | a |
| Georgia Power and Light Company First Mortgage | 3½ | 1,000,000 | 1975 | February | 101.00 | 3.32 | a | a | a |
| Kentucky Water Service Company First Mortgage | 4 | 800,000 | a | a | a | a | a | a | a |
| Long Island Lighting Company 10-Yr. Series G | 3 | 12,000,000 | 1958 | February | 100.00 | 3.00 | 0.94 | 99.06 | 3.11 |
| Wisconsin River Power Company First Mortgage | 2½ | 8,500,000 | 1977 | February | 100.00 | 2.88 | 0.50 | 99.50 | 2.90 |
| Black Hills Power and Light Company First Mortgage | 3½ | 1,100,000 | 1973 | March | a | a | a | a | a |
| Cheyenne Light, Fuel and Power Co. Bonds | 3½ | 1,350,000 | 1978 | March | a | a | a | a | a |
| Consolidated Gas, Electric Light and Power Company (Baltimore) First Refunding Mortgage (S. F.) | 3 | 15,000,000 | 1978 | March | 100.99 | 2.95 | a | a | a |
| El Paso Electric Company First Mortgage | 3½ | 1,000,000 | a | March | a | a | a | a | a |
| Empire District Electric Company First Mortgage | 3½ | 4,000,000 | 1978 | March | 102.345 | 3.37 | a | a | a |
| Iowa Southern Utilities Company First Mortgage | 3½ | 2,000,000 | 1978 | March | a | a | a | a | a |
| Kansas-Nebraska Natural Gas Company S. F. Debentures | 3½ | 2,750,000 | 1965 | March | a | a | a | a | a |
| Maine Public Service Company Debentures | 4½ | 1,500,000 | 1963 | March | a | a | a | a | a |
| Pueblo Gas and Fuel Company First Mortgage | 3½ | 700,000 | 1973 | March | a | a | a | a | a |
| Southern New England Telephone Co. Debentures | 3½ | 15,000,000 | 1978 | March | a | a | a | a | a |
| United Illuminating Company Debentures | 2½ | 8,000,000 | 1978 | March | a | a | a | a | a |
| Total or Weighted Average (b) | | 86,425,000 | | | 100.50 | 3.05 | 0.72 | 99.26 | 3.11 |

(a) Information not available.

(b) Included in each final figure is the maximum amount of information available.

pany, net proceeds to company, and true cost to company averages. In volume, the principal amount of preferred stock was approximately equal to that offered in the first quarter of 1947. The \$15 million Philadelphia Electric Company \$100 par issue was by far the largest of the quarter. Due to the heavy weighting of the Philadelphia Electric issue and the \$5 million West Penn Power Company issue the weighted average of offering yields was down to 4.53%. Although lower than the 4.68% fourth quarter 1947 figure, this represented a higher average than obtained in any of the other three quarters of 1947. On the basis of five issues a weighted average of underwriters' commissions was 3.66%. The 2.60% and 2.61% figures for the Philadelphia Electrical Company and West Penn Power Company issues are probably more indicative of a reasonable spread for high-grade preferreds under present market conditions and methods of offering such securities. The weighted average of 1.03%

for estimated incidental expenses was closer to the long-term debt expense figures than was the weighted average of underwriters' commissions. The true cost to company weighted average was 4.70%. Based as it was on only five issues, this figure was not as good an indication statistically of the cost of preferred stock financing as the 3.16% average, based on twenty-six issues, was for long-term debt offered publicly.

Table IV presents a summary and analysis of nineteen common stock issues whose offering prices totaled approximately \$49 million. As in the case of the issues included in Table III, underwriters' commissions and estimated incidental expenses have been included where available and have been figured as percentages of offering prices. Not included were two large common stock issues offering during the quarter by underwriters. These represented merely a change of ownership of common stock issues already outstanding. For the seven issues for which information was

TABLE III—SUMMARY AND ANALYSIS OF PUBLIC UTILITY PREFERRED STOCK ISSUES OFFERED PUBLICLY AND PRIVATELY, FIRST QUARTER, 1948

| Company and Par Value of Issue (A) | Dividend (B) | Principal Amount(b) (C) | Month of Offering (D) | Offering Price (E) | Offering Yield (F) | Underwriters' Commissions (G) | Gross Proceeds to Company (H) | Est. Incidental Exp. (I) | Net Proceeds to Company (J) | True Cost to Company (K) |
|--|-----------------|----------------------------|--------------------------|-----------------------|-----------------------|----------------------------------|----------------------------------|-----------------------------|--------------------------------|-----------------------------|
| | % | \$ | | \$ | % | % of Offering Price | \$ Per Share | % | \$ Per Share | % |
| Inter-County Telephone and Telegraph Company (\$25 Par)----- | 5 | 100,000 | January | 25.00 | 5.00 | a | a | a | a | a |
| Kentucky Water Service Company, Inc. (\$25 Par)----- | 6 | 265,000 | January | 26.50 | 5.66 | a | a | a | a | a |
| Boise Water Corporation (\$100 Par)----- | 5 | 300,000 | February | 99.75 | 5.01 | 4.76 | 95.00 | 1.67 | 93.33 | 5.36 |
| Kansas-Nebraska Natural Gas (No Par)----- | \$5 | 228,800 | February | 104.00 | 4.81 | a | a | a | a | a |
| Northern Indiana Public Service Company (\$20 Par) (Convert.) (c)----- | 4½ | 5,453,880 | February | 18.00 | 5.00 | 7.56 | 16.64 | 2.56 | 16.18 | 5.56 |
| Philadelphia Electric Co. (\$100 Par)----- | 4.3 | 15,000,000 | February | 100.00 | 4.30 | 2.60 | 97.40 | 0.62 | 96.78 | 4.44 |
| Southwestern Public Service Company (\$100 Par) (d)----- | 5 | 1,000,000 | February | 100.00 | 5.00 | a | a | a | a | a |
| Wisconsin Power & Light Co. (\$100 Par) (e)----- | 4.8 | 3,000,000 | March | 100.00 | 4.80 | 3.50 | 96.50 | 0.70 | 95.80 | 5.01 |
| West Penn Power Company (\$100 Par)----- | 4.2 | 5,000,000 | March | 101.205 | 4.15 | 2.61 | 98.56 | 0.74 | 97.81 | 4.29 |
| Sunland-Tujunga Telephone Company (\$25 Par)----- | 5.25 | 200,000 | March | 25.00 | 5.25 | a | a | a | a | a |
| Pennsylvania Tel. Corp. (\$50 Par)----- | \$2.25 | 2,000,000 | March | 50.00 | 4.50 | a | a | a | a | a |
| Total or Weighted Average(f)----- | | 32,547,680 | | | 4.53 | 3.66 | | 1.03 | | 4.70 |

(a) Information not available.

(b) Based on par for par value issues and offering price for no-par issues.

(c) Offered for subscription by common stockholders.

(d) Placed privately.

(e) Underwriters' expenses variable, maximum approximately \$3.50 per share.

(f) Included in each final figure is the maximum amount of information available.

TABLE IV.—SUMMARY AND ANALYSIS OF PUBLIC UTILITY COMMON STOCK ISSUES OFFERED DURING THE FIRST QUARTER, 1948

| Company and Par Value of Issue (A) | Principal Amount(b) (B) | Month of Offering (C) | Number of Shares (D) | Offering Prices (E) | Underwriters' Commissions (F) | Gross Proceeds to Company (G) | Est. Incidental Expenses to Company (H) | Net Proceeds to Company (I) |
|---|----------------------------|--------------------------|-------------------------|------------------------|----------------------------------|----------------------------------|--|--------------------------------|
| | \$ | | | \$ | % of Offering Price | \$ Per Share | % of Offering Price | \$ Per Share |
| Cape and Vineyard Electric Company (\$25 Par) (e)----- | 1,750,000 | January | 35,000 | 50.00 | ----- | ----- | 0.08 | 49.96 |
| *Gulf States Utilities Corp. (\$12.50 Par)----- | 3,410,650 | January | 272,852 | 12.50 | 4.00 | 12.00 | 2.08 | 11.74 |
| New Bedford Gas and Electric Company (\$25 Par) (e)----- | 3,165,345 | January | 46,894 | 67.50 | ----- | ----- | 0.06 | 67.46 |
| *Washington Gas Light Company (No Par)----- | 1,424,200e 279,247d | January January | 71,210 13,790 | 20.00 20.25 | ----- 4.94 | ----- 19.25 | 4.95 2.67 | 19.01 18.71 |
| Wisconsin River Power Company (\$100 Par) (e)----- | 3,500,000 | January | 35,000 | 100.00 | ----- | ----- | 0.26 | 99.74 |
| Worcester Gas Light Company (\$25 Par) (e)----- | 310,000 | January | 12,400 | 25.00 | ----- | ----- | 0.16 | 24.96 |
| *Central Ohio Light and Power Company (\$10 Par)----- | 298,900 | February | a | 24.50 | a | a | a | a |
| *Cincinnati Gas and Electric Company (\$8.50 Par)----- | 4,314,904 c 184,898d | February February | 196,132 7,868 | 22.00 23.50 | ----- 6.38 | ----- 22.00 | 2.23 2.09 | 21.51 21.51 |
| *Dayton Power and Light Company----- (\$17 Par) | 4,080,000 | February | 170,000 | 24.00 | ----- | ----- | 2.33 | 23.44 |
| Potomac Edison Company (No Par) (e)----- | 1,000,000 | February | 50,000 | 20.00 | ----- | ----- | 1.10 | 19.78 |
| *Southwestern Public Service Company (\$1 Par)----- | 2,165,373 | February | 103,113 | 21.00 | 2.62 | 20.45 | 2.33 | 19.96 |
| *Black Hills Power and Light Company (a Par)----- | 298,500 | March | 19,900 | 15.00 | a | a | a | a |
| California-Oregon Power Company (\$20 Par)----- | 2,150,000 | March | 100,000 | 21.50 | 7.40 | 19.91 | a | a |
| *Dallas Power and Light Company (No Par) (f)----- | 4,095,000 | March | 68,250 | 60.00 | ----- | ----- | 0.95 | 59.43 |
| Interstate Power Company (\$3.50 Par)----- | 4,079,536 | March | 555,039 | 7.35 | 10.88 | 6.55 | a | a |
| Minnesota Power and Light Company (No Par)----- | 2,750,000 | March | 100,000 | 27.50 | 3.27 | 25.60 | a | a |
| Ohio Power Company (No Par) (e)----- | 7,000,000 | March | 7,048 | 998.19 | ----- | ----- | 0.11 | 992.10 |
| *Southwestern Electric Service Company (a Par)----- | 190,575 | March | 21,175 | 9.00 | ----- | ----- | a | a |
| *West Penn Power Company (No Par)----- | 2,500,000 | March | 100,000 | 25.00 | ----- | ----- | 0.72 | 24.82 |
| Total or Weighted Average (g)----- | 48,947,128 | | | | 6.07 | | 1.22 | |

(a) Information not available.

(b) Based on offering price.

(c) Subscribed by stockholders.

(d) Portion of issue unsubscribed but later issued publicly.

(e) Sale to parent or affiliated companies.

(f) Texas Utilities Company, owner of approximately 91% of common, subscribed for its allotted share.

(g) Included in each final figure is the maximum amount of information available.

* Offered for subscription by stockholders.

available, the range of underwriters' commissions was from 2.62% to 10.88%, giving a weighted average of 6.07%. This was substantially higher than the corresponding figure for preferred stock issues. Estimated incidental expenses (ranging from .08% on the \$1.75 million Cape & Vineyard Electric Company issue to 4.95% on that portion of the \$17 million Washington Gas Light Company issue subscribed for by stockholders) were closer to the preferred stock figures. The weighted average of 1.22% was only 1/5

of 1% higher. As in the fourth quarter of 1947, the volume of common stock financing exceeded that of preferred stock financing. This reflects in part the continuing demand for balanced financing programs as the post-war physical expansion of the utility industries continues unabated.

EDGAR F. BUNCE, JR.

Graduate Student,
Department of Economics,
University of Wisconsin

Book Reviews



A Critical Review of Research in Land Economics.

By Leonard A. Salter, Jr. Minneapolis:
University of Minnesota Press, 1948.
pp. 253. \$5.00.

This book is even more than the title implies. It is a study in methodology in agricultural economics. I have found Salter's presentation the most stimulating new book in the field of agricultural economics. It should be studied and the issues thought through by every agricultural economist who has within himself the power of new growth. The day of success in this field by hit-and-miss methods is over. Pioneering without a compass may yield some results in the early stages of a new field of research. This is no longer true of agricultural economics. In this book Salter is searching for the compass. He has opened the subject in a vigorous manner. He does not purport to have said the last word. This book should stimulate an overhauling of research methods used by agricultural economists. If taken seriously, this can prove to be the most valuable book of the year for the agricultural economist who wants to improve the quality and usefulness of his work. Some of the critical statements may prove hard to take for some who are comfortably riding along in old ruts. Any such disturbance will be a sign that something is needed.

Salter's book will have served a grand purpose if it stimulates students of agricultural economics to make a thorough re-examination of research methods. The need is great. The new agricultural economics is not so simple as the old. Statesmanship economics has been added to farm economics. The two have not been harmonized. The danger of confusion is, therefore, great. A new approach with well-defined methods of research is needed for the combined task. Salter has opened the window. His work will help us see the way.

In addition Salter has given an interesting and useful survey of the development of land economics. A study of these chapters further

illustrates the methodology which is certainly the central theme of the book.

Salter's chapters have the earmarks of a study made by a man who felt deeply the need of better tools than those furnished to him in the days of his apprenticeship. In striking out to find or to forge better tools, Salter manifested those qualities so much needed but which are all too rare. Scholarship, originality, dynamic purposefulness are some of these qualities.

The book, of course, is not a finished product. It is a grand piece of work. Not one Doctor's thesis in a hundred rises to the level of this one. The great contribution of the book will be in stimulating people to realize they must always be alert to improving their methods. He who is content with old methods of research in the growing field of economics will not be known to the economists of the future. We all need to be growing through the kind of a struggle that Salter was going through.

Great is the pity that he is not with us in person to help pilot the way to clearer thinking and better research in the third quarter of the twentieth century.

HENRY C. TAYLOR

Farm Foundation,
Washington, D. C.



The Missouri Valley. Land of Drought, Flood, and Promise. By Rufus Terral. New Haven: Yale University Press, 1947. pp. 245, bibliography. \$3.75.

This is not a book addressed to the readers of *Land Economics*, and the reviewer, for one, is glad of it. It will appeal to the browsing layman rather than to the professional in regional planning or river development. Mr. Terral knows that thousands of readers who will need his footnote definitions of "kilowatt" and "acre foot" will nevertheless be rightly curious about the three-year-old Missouri Valley development which, by July 1948, will have cost 630 million dollars.

Choosing a method suited to the task, Mr. Terral has assembled a series of genre pieces which paint the problems of soil, floods, navigation, water rights, irrigation, underground water, and industrial development in colors bright enough to catch the eye. He is following the honorable precedent of Willson Whitman, whose *God's Valley* did the same job for the Tennessee basin, and of Joseph Kinsey Howard, whose *Montana, High, Wide and Handsome* covers in bold strokes the opposite corner of the Missouri basin from Mr. Terral's St. Louis headquarters. What the reader of those books misses in the present one is the people. What makes the Missouri Valley tick? The final chapter throws out some promising clues; they have not been used to track down the specific problems which make up the preceding chapters. A regional temperament "defiantly self-reliant" might suggest deep political reasons why "the Reclamation Bureau . . . has seemed to feel that its job was done when it made irrigation water available," and why, in spite of the resulting failures, "many people in the upper valley have come to accept the Reclamation Bureau as the best way to take the federal authority if they have to take it at all." Testing of such relations between attitudes and programs all the way through would probably have provided more meat for the politicians and administrators who will be reading the book, and might in addition bring valley readers to the stage of conviction on the closing assertions as to the human elements. They seem reasonable enough, as is, to the outside observer who has followed Bernard DeVoto.

Those who do not accept Mr. Terral's entirely legitimate view that the legislative charter for the Missouri Valley development ought to be worked out by profiting from TVA's mistakes in its basin (plus some recognition of water rights) will also complain that he doesn't start from where they are. Participants in the many programs working ultimately toward the same end, from the basin committee of the National Resources Planning Board to the state conservation commissions, may have this feeling. It will be strengthened by the lack of reference either to the huge physical program under way along the Missouri since the end of the War, or to the faltering steps toward multiple-purpose water conservation which the clumsiness of the present administrative arrange-

ments has not entirely prevented: the Osage River is a case in point.

But Mr. Terral has his eye on the main chance; it is the slim chance that the people in the valley will find out enough about the opportunities that watershed conservation holds, and the obstacles thereto, to mobilize for a common effort. His stories of the Fort Collins Forest Experiment Station discoveries on increase of snow melt by cutting timber, or of the improvement of grains and grasses for the Great Plains, are therefore not only dramatic but highly relevant. A chapter on "The Need to Know" gets to the heart of the obstacles to full development. It is a sober indictment of the agencies being used in the present development that until 1929 they had not maintained a continuous record of the flow of the Missouri River. Nowhere else is told the story which Mr. Terral here fits together of the "second Missouri Compromise" which secured authorization of the Pick-Sloan plan by giving inconsistent guarantees to both the competing interests in the use of scant Missouri River water.

Rufus Terral is the writer whose editorial page in the St. Louis *Post-Dispatch* shook the narrow water interests in the Missouri Valley four years ago with its challenge: "One river—one problem." He has tackled a big problem and has seen it whole. The result properly shocks any citizen (from budget balancer to humanitarian) who would like to think that the great appropriations flowing to this great project are being spent with some effort to foresee their consequences.

HENRY C. HART

University of Wisconsin



Farm Management. By John D. Black, Marion Clawson, Charles R. Sayre, and Walter W. Wilcox. New York: The Macmillan Company, 1947. pp. 1073. \$5.50.

This book possesses the tremendous advantage of having been written by no fewer than four distinguished and exceptionally able farm management specialists. Coming up to the standards implied by its authorship, it stands by itself as a text in the field. It stands apart for a further reason: while for the past twenty years there has been an increasing tendency to use modern economics

in teaching and research in this field, for the first time a text has divested itself entirely of the "error" which has clung tenaciously since the first one appeared about the turn of the century.

The reviewer finds himself freed from the tradition, honored in the observance, according to which farm management workers carefully hoard, and then in an unrestrained and prodigal outburst, employ their most profuse, and extravagant adjectives in reviews of each others' books—even in reviews of mediocre and sometimes thoroughly bad books. Without being in danger of getting into the company mentioned above, the reviewer confesses he is confronted not only with an excellent book but with a definitive book on farm management.

Why is this text different? Why superior? One reason is given by the authors in their *Preface* statement that "the economics presented is the *economics of the farm as a firm*, as this terminology has come to be used in recent economic literature" (p. vi). This is most important when one considers that almost all previous works have represented economic agnosticism and have turned to finding "truths" in cross tabulations of almost everything under the sun. This traditional approach represents an explicit denial that the farm is an economic whole or an economic entity. Either explicit or implicit in the cross tabulation is the conclusion that, if the farm operator makes adjustments in the direction suggested in these tabulations, he can increase his net returns. Commenting on a specific use of this method the authors state with more than needed restraint: "One could scarcely conclude from this table that any one of these five groups of farms would do better to shift to one of the other systems of farming" (p. 497). The authors continue: "What these tables mainly show is that the better farmers own the better farms, obtain higher yields, and also have higher incomes."

In sharp distinction to this traditional approach which gives results which are wrong, spurious, or neutral with regard to the issue of combining the agents of production to maximize returns, the book being reviewed presents a constructive and positive approach. "The determination" of optimum factor combination, the authors say, "must be an individual one depending upon the special circumstances in each area and on each farm" (p. 497). Their approach is by the budget

method. It is hardly necessary to point out that the writers are fully conscious of the limitations involved in employing this method. A major contribution of the book rests in showing for actual farms how the budgeting job is done and what its possibilities are. In this connection illustrations are drawn from farm management work of the Bureau of Agricultural Economics, the Experiment Stations, the Soil Conservation Service, the Farm Security Administration, and the Tennessee Valley Authority. A further important contribution of the book lies in demonstrating how "much of the research of the Experiment Stations could advantageously be pointed directly toward supplying . . . farmers with the information needed in making such farm plans" (p. 630.)

The authors not only develop the principles and methods of analysis but illustrate them with regard to every important type of farming and many systems of farming found on the continent. They also deal, almost at book length, with some "special problems of farm management" including chapters on farm equipment, labor, land, rented farms, buying and selling, financing, appraising, etc.

Not being content to review any book without finding some fault, the reviewer is led to complain of the price of the volume. (Perhaps this is not so relevant in the United States where the tempo of the economy and the distribution of real income are more favorable than here in Canada!) However, the price reflects the encyclopedic (1073 pages) character of the book: it has sections dealing with social organization, the historical origins of land holding, land survey systems, farm tenancy by regions, population and migration, population and food supply. It describes the major features of American agriculture. Unquestionably, these matters have an important bearing on farm management. While admitting this, one can assert that consideration of them belongs in the broader field of agricultural economics. On the other hand, the breadth of the work represents more than an adequate answer to those who charge that current thinking on the production side of agricultural economics seldom goes beyond the "stock remedy . . . of more technological gadgets and better farm management."¹

¹ Cf., T. W. Schultz, "How Efficient is American Agriculture," *Journal of Farm Economics*, August 1947, pp. 644-58.

More as an expression of the limitations which have characterized the development of the field than a criticism of this book is the point that the work falls short of demonstrating without reservation the means by which resources can be allocated within the farm business in a manner fully consistent with the marginal principle. We do not know enough about production functions in agriculture; we do not know enough about the implications of risk on scale of operations, on outlays of variable cash expenses. This list, needless to say, could be greatly expanded.

No review of this work should avoid mention of the sixty-two excellent photographs, all carrying a farm management message.

The reviewer does not like text books—they are a necessary evil. In fact, he is tempted to apply, particularly to the text book field, Sidney Smith's epigram: "I never read a book before reviewing it; it prejudices a man so." Here is a book on which any reader, let alone a reviewer, can well take a chance. It brings within the covers of a single volume, for the first time, the "New Look" in farm management—and here, in sharp contrast to certain other fields, the "New Look" was urgently needed.

DAVID L. MACFARLANE

Macdonald College
McGill University



Leases: Percentages, Short and Long Term. By Stanley L. McMichael. New York: Prentice-Hall, Inc., 1947. pp. 585. \$5.00

As pointed out by the author in the foreword, this is the fourth edition of a book dealing with the history and practice of leasing real estate for terms of years. Its first predecessor, *Long Term Land Leaseholds*, which was published in 1921, dealt exclusively with the so-called ninety-nine year leases, and incidentally formed the nucleus of the rather substantial "Realty Library" under the authorship of Mr. McMichael. This was followed by *Long and Short Term Leaseholds* in 1923, and an enlarged edition under the same title in 1925. The greatly increasing popularity of what are commonly called "percentage leases" prompted the author to extend the subject still further in the present work. The experience of some of the best-

known real estate leasing authorities in the nation has been drawn upon in this instance by the ever-resourceful and leading writer of books covering very nearly the entire gamut of real estate activities. The result is a highly authoritative guidebook which should prove invaluable to prospective lessees of real estate, brokers who wish to specialize in the negotiation of real estate leases, and owners who wish to retain their properties while relinquishing the use and operation thereof to others.

Chapter I, which traces the history of the practice of leasing from antiquity to the present time, is followed by definitions of the various types of leases, together with the contents and characteristic features of a typical lease in Chapter II. The general principles governing the writing and operation of short-term leases are described in Chapter III, with special attention being paid to a few fundamental differences which distinguish them from those controlling long-term leases, although they are the same for the most part.

Percentage leases, the greatly increased use of which is advanced by the author as this volume's principal *raison d'être*, are quite amply explored in Chapters IV through VIII inclusive, including such phases as selecting the percentage rate, devices for checking on gross sales, desirable special provisions, and recapture clauses.

Chapters IX to XIV, inclusive, are concerned with adjusting rentals to dollar values, the origin, growth and policies of chain stores, what chain stores want to know about locations, analyzing pedestrian traffic, building a chain-store leasing department, and requiring the tenant to share the taxes.

Concession, signboard, oil, gas, and a variety of other short-term leases are described in Chapter XV.

Long-term leases which formed the burden of the author's earliest expedition into the real estate leasing field, referred to earlier, quite naturally engages the greater part of his attention in the current excursion as well. Slightly over half of the first two hundred and fifty pages comprising the book proper, or the last eighteen chapters, are devoted to long-term and ninety-nine year leases. Various aspects of these leases, forming a rather exhaustive list, comprise the subject matter of the individual chapters, such as: long-term leases in a changing world; leases of unusual types; three general types of leases; advantages to

lessor and lessee; essential features of a lease; security to lessor and lessee—building clause and bonds; insurance, strikes, trustee, assignments; other important lease covenants; termination provisions; agreement to make a lease; financing leasehold estates; appropriating leased land; legal aspects of a lease; advantages of making a lease renewable forever; effect of income tax laws on leases; appraising leasehold estates; who shall write the lease; suggestions to brokers.

On the whole, the book is quite readable and should not cause the layman of average intelligence too much difficulty in understanding. The only possible exceptions being certain parts of the Chapters XXVII, XXVIII, XXX, and XXXI in which are discussed: appropriating leased land, legal aspects of leases, effect of income tax laws on leases, and appraising leasehold estates, respectively, especially the last. Upon first reading of the book one gets the impression that it is somewhat repetitious which, in a volume of this nature, may be more of a virtue than vice. This is partly to be accounted for by the fact that the author has resorted to quotation rather extensively, in some instances from several authorities in succession on the same subject.

The book is rather unique in that considerably more than half, three hundred and thirty-five pages to be exact, is taken up with the index, appendices, and specimen leases which would ordinarily be classified as appendix material also.

W. H. TEN HAKEN

University of Wisconsin



Monetary Theory Second Edition. By George N. Halm. Philadelphia: The Blakiston Co., 1946. pp. 491. \$3.50.

Professor Halm has revised his well-known *Monetary Theory*, originally published in 1942, so as to include a discussion of the Bretton Woods Agreements and other recent developments in the field of his study. The result is a book as up to date as it could be, in this rapidly moving world of ours. To this reviewer it is not entirely clear what the primary objective of the author is; in the preface of the first edition, Professor Halm says that he tries, in his book, to summarize

the present state of the debate in monetary theory as he sees it. On the other hand it would appear from the same preface that the book is primarily intended to be a text-book for "the elementary student in money and banking." Now these two objectives might not be reconcilable and certainly they have not been reconciled in Professor Halm's treatise. The contemporary monetary debate takes place on a very high level of theoretical abstraction and, at the same time, practically all the aspects of economic theory must be brought into play, at one time or another, when dealing with such problems as business cycle theory, the theory of international payments, etc., etc. The elementary student would not have the equipment to follow the contemporary debate in its most interesting and valuable aspects. Should Dr. Halm, therefore, have succeeded in his first objective, he would have written a treatise which would be of immense interest to his fellow economists but which only graduate students could profitably use. On the other hand, if he were writing for the "elementary student in money and banking," he would have to leave out many of the niceties of the theoretical debate and would have to be far less scornful than he appears to be of factual data.

Professor Halm says that many years of teaching experience have convinced him "that the introduction of a large amount of factual data tends to confuse the student's understanding of the working of the monetary system." That indeed is an extremely surprising statement. One reason why there exists at present such an unwholesome division between economic theory and economic practice is precisely to be found in the fact that the "elementary student" is not shown, very early in his career, how the theories he is taught tie in with the economic experience of every-day life. Professor Halm's book fails to create that bridge; whereas the material in it may be largely familiar to the *advanced* student, it must inevitably appear to the *beginner* as only very tenuously connected with practical issues.

The pattern of the book follows the customary arrangement. Part I is devoted to The Supply and Value of Money; Part II to Money and Foreign Exchange; Part III deals with Money, Investment, and Employment. Throughout the book one finds a very strong influence of the work of the late Lord Keynes,

but the Keynesian contribution is not given the critical appraisal which would be expected from an advanced treatise. The reviewer is struck with what impressed him as a rather uncritical acceptance of the theory of "liquidity preference" or that of the "multiplier." Both are presented, incidentally, in a far too simplified form.

One of the greatest difficulties economic theory seems to be faced with, is a definitive elimination of pseudo-quantitative concepts. In no field is that elimination more necessary or more overdue than in the theory of money. It is disappointing to find that this modern treatise brings no improvement in the situation. Whether we take the discussions of the "trade volume" (pp. 85-87) or of the national income (pp. 90-92) or of the price levels (Chapter 8), we find no acknowledgment given to the fact that the only method of quantitative expression of economic aggregates is in terms of money units, and that this too runs into all kinds of difficulties on account of price movements. On another level, there is a good deal of pseudo-quantitative analysis in Chapter 21: "Multiplier and Acceleration Principle." Problems discussed under this heading go into the very heart of economic dynamics and, to this reviewer at least, the treatment is far from satisfactory. This may be a case where the establishment of a clearer relationship between theory and empirical data would have been of great use. In the absence of any reference to empirical data, Chapter 22, "A model Cycle", is also likely to provide the undergraduate student with insufficient insight into the mechanics of economic processes. There are a great many other points on which this reviewer would like to take issue with Professor Halm. One last point must suffice. The "concept of full employment" is frequently used throughout the book (as the author himself says on pp. 434); nevertheless the concept is neither defined nor analyzed critically and the short discussion on pp. 434 and 435 is likely to mislead rather than to inform the unsophisticated reader, while the advanced reader will find it a very superficial approach to a very important issue. It is surely not enough to say, as Professor Halm states, that whereas the concept of full employment was referred to, earlier in the book, as an aim of monetary policy, etc., it "now . . . becomes essential to point out that this concept is by no means as clear as its frequent

use suggests" (p. 434). Would it not have been better to make that observation at the beginning of the book instead of the end, and *not* use as an aim of policy such an admittedly unclear and ambiguous notion? It is a good principle of geometry and of logic to define terms before using them; by doing so one avoids the building of elaborate verbal constructions upon quicksand of unclear, ambiguous or pseudo-numerical concepts.

MICHAEL A. HEILPERIN

New York



Full Employment in Your Community. A Report of the W. E. Upjohn Institute for Community Research. Chicago: Public Administration Service, 1947. pp. 119. \$2.75.

"It is the purpose of this book to bring together in one place all of the major suggestions that have been made which look toward the achievement and maintenance of full employment, insofar as these proposals relate to action which can be taken at the local level." While the authors recognize the importance of national effort in achieving full employment they strongly emphasize the importance of local effort "to strengthen, expand, and stabilize the local economy" because "national policies will not insure a high level of employment in any particular community." Further, "if democracy is to be virile—and it must be virile to survive—it must be strengthened at its roots in the community," also "there will be less waste of financial and human resources in a community which is conscious of the direction of its economic development." A separate chapter is used to discuss what each of five groups can do to achieve a program of full employment in the community.

The *local government* can assist in making the community a desirable place in which to live and work and to establish a business. This to be done through a tax program; recreational facilities; police and fire protection; zoning ordinances; a well-planned public works program; stabilization of employment, and the purchasing program in its own administrative set-up; educational programs oriented to the community and rural needs; and research programs with an aggres-

sive policy for planning, investigating and soliciting business and industrial developments which will contribute to the economic and social progress of the community.

What can *industry* do? Management can take action to stabilize employment at the highest level. This would be an economic and social benefit to the community, and in addition result in reduced expenditures for unemployment compensation taxes, fewer overtime payments, less labor turnover, lower costs per unit of product, better morale, lower "break-even point," and higher employee job satisfaction. Concretely: industry can plan for efficient operation through stabilizing production schedules (7 ways are explained); by carrying on a program of product development; by controlling demand for goods through the sales program (10 policies and procedures are explained); and by improved management of the work force through personnel policies and procedures (6 activities are described). The authors cite experiences of ten companies and go on to point out that if sufficient progress has been made a firm may consider one of four plans for assuring employment security: (1) employment guarantee plan; (2) annual wage plan; (3) wage-advance plan; (4) limited income-security plan. Possibilities of cooperative effort among employers are cited.

Service Occupations can make their contribution to a high level employment by using many of the techniques suggested above, but an essential aspect for the community is to aid small business to be profitable, and to determine existing service needs and what are the possibilities of supplying some of these needs by cooperative effort of the interested groups.

In considering *agriculture* and full employment, the authors urge that the problem is to maintain farm income at a high level; to encourage farmers doing subsistence farming to accept industrial employment; to develop adequate processing and storage facilities; to provide off-season industrial employment; and to bring about a recognition on the part of urban groups that they should be willing to assume more responsibility for the educational and recreational needs of rural groups.

The authors are inadequate in their appreciation of the positive contribution which *labor unions* may make toward full employment. Their program consists of correcting labor practices which jeopardize profits, violations of labor contracts, restric-

tion of production, and wage policies which ignore the relationships between prices, wages and profits. They say that they "do not mean to imply, however, that the present practices of labor groups are often found to violate these principles." Why, then do they base their program on education and correction? Less naivete regarding management practices toward labor unions and a better understanding of why and how labor unions developed would improve this chapter.

The last two chapters are devoted to planning. The conclusion reached is that a sound plan must be based on adequate financial support and public participation, that it must be made for an actual geographical area, usually comprising both urban and rural sections, and that it should be coordinated with regional, state, and federal plans to be most effective. The functioning structure suggested is an employment council working through an executive committee and various sub-committees. The outline provides a plan of action and should enable a community to get started on a program for full employment.

The book provides a succinct review and handy reference for the seasoned participant in civic affairs and the city planners, but may be considered rather elementary to them when administrative details are outlined. For the neophyte this volume is a *must* which should provide a spring board for further study and action.

W. E. GIESE

University of Wisconsin



The Trade of Nations. By Michael A. Heilperin. New York: Alfred A. Knopf. 1947. pp. xix, 234. \$3.00.

This little volume which the author addresses to the general public rather than to his fellow economists is a lucid and comprehensive introduction and guide to international trade and economics. Starting with an exposition of the theory of international trade, the book discusses the checkered pattern of past international economic relations, current problems and difficulties, and their possible solutions.

Dr. Heilperin has divided the work into four sections. The first gives a facile expla-

nation of the basis for and benefits of world trade, the nature of foreign investment, and the importance of stability in exchange rates. The author comes to grips with the attractive notion, often buttressed by statistics, that the process of capital accumulation through the technique of large-scale borrowing leads inevitably to default. He shows that this formulation is not the essence of the problem, but rather obscures the real difficulty—which is the unfortunate trend for foreign investment to be undertaken on a loan rather than an equity basis. Dr. Heilperin is less successful when dealing with stable exchanges. He defends the gold standard as "the monetary system of an essentially peaceful world where confidence reigned, trade was reasonably free, capital movements between countries regular." (p. 58) But he goes on to say that these "conditions have never been fully realized since August 1914, and in their absence the gold standard could not work." (p. 59) The general technique of exchange control that became prevalent is severely criticized, and the author leaves us with a situation which appears insoluble. He does not adequately dispose of the assertion that in a world which is dynamic, but where change is not uniform, the gold standard may have caused further deterioration by forcing deflation on countries faced with deficits in their balance of payments.

The second part of the book deals with economic nationalism. A theoretical refutation of all the arguments for protectionism is presented with considerable virtuosity, but there is no statement of the problems involved in tariff removal. One cannot help but feel that Dr. Heilperin has shirked his duty to the lay reader by not advising him that the abolition of all tariffs with one stroke would present more problems than it could solve. In a chapter provocatively entitled "Forward to the Past" the Keynesians are accused of slavish devotion to an undefinable goal of full-employment. Nobody can dispute Dr. Heilperin's contention that the maximum utilization of all resources is the ultimate aim of economic policy. But it is equally undeniable that we must first solve the problem of fully employing human resources because human misery is a greater evil than a higher cost curve. Dr. Heilperin would argue that the best way to end the former is to lower the latter, but recent history does not support this conclusion.

The third book deals with broader questions of international policy, and the author is encouraged by the progress in this area. He is favorably disposed toward the International Monetary Fund, the World Bank, and the International Trade Organization. This places him in one camp with the Keynesian economists that he so frequently attacks.

The fourth book is concerned with the responsibilities and potential contributions of the United States to world prosperity. Dr. Heilperin's program for the United States including full-employment, the opening of American markets to world trade, the extension of long-term credit, international cooperation, economic flexibility, and trade agreements for the extension of unfettered trade is irreproachable. Here again, on matters of policy, he is at one with the Keynesians.

The over-all merit of the book is considerable. Dr. Heilperin's main contribution consists in explaining the historical background for present international economic difficulties, and in indicating the direction in which long-term solutions lie.

The general reader will find the book interesting and readable, but I suspect that he will be unclear as to the real nature of the author's disagreements with Keynesian economists. He will probably think them far more important than they are. The economist will find in this work an excellent exposition of a vigorous point of view on the vital theoretical problems of international relations.

HOWARD C. GARY

*Department of Economics,
University of Wisconsin*



Land Economics, By Ronald R. Renne. New York: Harper and Brothers, 1947. pp. xiv, 736. \$5.00.

This volume, authored by President Renne of Montana State College, comes as a welcome addition to the literature in the field of *Land Economics*. Both in organization and content the book seems designed primarily for classroom use. But many research workers as well as teachers will find it a fertile source book of information, and its readers must

agree that the author has presented a well-rounded treatment of his subject.

The book is divided into five parts: I. Background and Perspectives, II. Principles of Land Utilization, III. Major Land Uses, IV. Land Use Problems and Policies, and V. Planning and Control of Land Use. The first and last of these sections are reasonably short—the first deals with the general content of the field of land economics and the last with land use planning and its possible future use.

Most of the discussion of economic principles and methods is found in Part II, Principles of Land Utilization. The first three chapters in this section are entitled "The Supply of Land," "The Demand for Land," and "Land Appropriation." They deal with the problems of land as space, the impact of population pressures on land, and land as property, respectively. The more important economic principles affecting land use are discussed in the chapter on "Economic Processes in Land Utilization." This is followed with a chapter on "Land Rent and Income Distribution" which briefly considers the nature of rent, land rent theory, and the process of capitalizing rent into land values.

Part III, Major Land Uses, is divided into seven chapters, dealing respectively with the problems of agricultural, forest, recreational, mineral resource, water resource, transportation and urban land use. In his discussion of these various land uses the author employs an organization pattern which emphasizes (1) need and demand for each type of land, (2) its supply situation, (3) its major use problems, (4) its inherent peculiarities as a type of land use, and (5) future land requirements.

The consideration of such important land economics problems as land tenure, land valuation and credit, land taxation, and conservation is left to Part IV. Each of these subjects is ably treated by the author. The chapters on "Land Tenure and Tenancy" and "Conservation of Land Resources" are particularly commendable. They represent the best overall summary treatments of these subjects that have yet come to this reviewer's attention. Praiseworthy as the individual chapters in Part IV are, however, it is this reviewer's opinion that many teachers will want to treat the problems of tenure, valuation, taxation and conservation together with rather than apart from their

discussion of the major land uses described in Part III.

Many readers will be interested in comparing this book with Ely and Wehrwein's *Land Economics* (1940). As one would expect in the case of texts which cover the same field, there is considerable overlapping of subject matter and joint use of the same source materials and examples. Professor Renne's book is probably the more systematically organized, although not necessarily the more readable, of the two. With its additional 224 pages of text, it deals with many land economics problems in a more detailed and encyclopedic fashion. More attention, for example, is focussed on the subject of transportation as a land use, on the problems of land tenure, taxation, and conservation, and on the land use planning process. At the same time, however, the treatment of some subjects such as the utilization of arid, forest and urban lands seems less complete than that presented in the Ely-Wehrwein volume.

RALEIGH BARLOWE

Cooperative Agent, Bureau of
Agricultural Economics and
Michigan State College



Problems of African Development, Part I, Land and Labour. By T. R. Batten. London: Oxford University Press, 1947. \$1.25.

The study, *Problems of African Development*, is concerned with the British colonial possessions in tropical Africa. It purports to be an introductory survey of some of the problems "that must be solved before the goal of British colonial policy—self government for the colonial peoples—can be reached." The present volume, *Part I, Land and Labour*, touches briefly on a number of economic problems. A second volume, *Part II, Government and People*, will consider some of the political, social, and psychological problems.

The basic premise of this volume, *Land and Labour*, can be summarized in the statement that "the people of Africa are poor . . . [because] their lands appear to lack great potential wealth, and less skill and energy have been applied to their development." Thus if the African peoples are to attain the same standards of living and social services that the people of Europe and America enjoy

"they must overcome the initial disadvantage of smaller natural resources by an even greater application of knowledge, skill, and effort."

The author demonstrates that many of the problems now current in Africa result from a lack of understanding of native customs. The system of land tenure, for instance, was based on the idea of communal ownership. The individual thru membership in the community acquired the right to use as much of the land as he needed. British investors "bought" land which they wanted for mining or plantation operations, assuming that thru the purchase they acquired ownership in fee simple. The natives viewed the purchase price as a gift by which the donor acquired membership in the community and thus had equal right to use the land with any other member of the community. Aside from the conflicts which resulted from cultural differences, the plantation economy and the introduction of cash crops disrupted the subsistence economy of the area, leading to more intensive cultivation of the soil and giving rise to the concomitant problems of erosion and soil depletion. Mr. Batten draws heavily on more intensive research in the area so that the monograph, in addition to giving a brief and concise account of the problems, includes a selected bibliography of prior studies in British portions of equatorial Africa.

HARALD A. PEDERSEN

University of Wisconsin



The American Farmer: His Problems and His Prospects. By Lee Fryer. New York: Harper Bros., 1947. pp. 168.

In these days of full farm production at high prices, this treatise on the problems and prospects of the American farmer is a contribution to forthright thinking and to realism. It enables us to peer behind the inflationary curtain and discover that all is not well on the American agricultural landscape—particularly with the small, family-operated farm.

As an interpretative treatment of the economics and sociological problems of American agriculture and as a presentation of a program of action to meet these problems, the book will satisfy neither the "family

farm-is-doomed" school of thought nor the orthodox thinkers in the field of agricultural reform. Because the author is convinced that the family farm "can be made into an efficient unit in a modern society," he is for preserving it as the basic unit of production and social organism in our farm and rural life. His approach for its preservation (incorporated in the last chapter entitled, "A Charter for Reconstruction of Rural Life in the U. S.") will not find favor, however, with rigid adherents of a free-wheeling economy in agriculture. Few will fail to acknowledge, however, that it is an impatiently tightly treatise, vigorously pursued, crisply handled and provocatively presented.

Admittedly, the book, "is about working farmers, their struggle to survive, their houses, their health and income, and their future in the United States." Those who are familiar with the economic, social and cultural handicaps of the "dirt farmer" in American agriculture, and who are in a hurry to get at the vitals of the book, may skip the chapters falling between the first and the last. The latter two will give the informed reader the agricultural philosophy of the author and his views for reconstructing the farm economy and rural life in the United States.

The central driving force behind the presentation is the realization that "the vital problems in American agriculture have not been solved during the war years." "All the old and still unsolved problems of the 1930's and the new problems of the 1950's," the author states, "are waiting to fill the minds and lives of rural people again." Less secure than ever before is the position of the family farm. Three out of five of these farms are today "too small to support a family satisfactorily," and a million of them "face dispossession when commodity prices decline again to the 1939 level." But even high prices, the author pushes on, are not the solution to the security problems of small and family farmers for the latter (about 4 million) are not in the position to take full advantage of high or favorable prices, producing, as they do, only about 20 per cent of the total value of U. S. farm production.

Perhaps two of the most challenging questions raised by Fryer are: (1) Why a double standard of living for city and farm people? (2) What system of farming do we want? The first question leads to an examination of the "bed rock problems" in Ameri-

can agriculture that are responsible for "about two-thirds of all farm people [failing] to obtain a reasonable minimum American living," measured against a yardstick of \$1400 net cash family income at 1940 prices; the second presents us with the necessity of making a clear-cut public policy choice respecting the encouragement of the type of agricultural structure whose efficiency would be most consistent with the welfare of those dependent upon farming for a livelihood and for a mode of life.

The generally recognized problem of surplus manpower in agriculture does not escape the author. At least 2.5 million farmers and farm workers, he observes, are slated for disemployment as new machinery and improved management reduces the need for manpower in postwar agriculture. Urban absorption of this surplus labor is rejected as being unrealistic. In an inspiring chapter, "Occupation and Industries for the Countryside," the author proposes an alternative solution. What probably will be considered the most original and positive features of Fryer's treatment of the problem is his 7-point program of community action for "rebuilding American farm life." The author states that "its provisions have still to be reworked in neighborhood debate, at fence corners and in community halls." Whether or not one agrees with this basic approach or in every detail, it is sufficiently stimulating to merit the attention and study of agricultural planners and policy makers.

The book is not without missionary zeal. It is, simultaneously, a critique of the rugged individualist farmer who "cannot quite bring himself to join the local farmers' cooperative" and a call to small and family farmers to organize for their economic protection. As he puts it: "Unless Mr. 100-174 Acres finds out very soon that he is a small farmer, needing collective security with other small farmers, may the Lord help him."

Neither is the book without weaknesses. The statement for example, that the farmer "is a member of the most inefficient economic enterprise in the U. S." is subject to closer scrutiny before it can be accepted on its face value. Fryer also declares that he "opposes any system of farm production that would cause large numbers of people to become migratory farm workers, homeless and exploited by big farm operators and farming corporations." It's the better part of realism

to reconcile ourselves to the fact that migrant seasonal workers in American agriculture are here to stay. And, why, it may be asked, must they be exploited and homeless?

A note of bitterness may be detected in the author's dedication of the book "to the employees of the Farm Security Administration who spent their sweat and their devotion in a losing battle to eliminate the causes of rural poverty in the United States." This will be understood as a reference to the curtailment of the scope of the functions of the above agency with which he was formerly associated. As an employee of the Farm Security Administration, and now of its successor, the Farmers Home Administration, this reviewer may perhaps be permitted a brief comment in this connection. The causes of rural poverty cannot be eradicated by a single campaign against it. A continuous and sustained effort is required. Many lessons were learned in the campaign conducted by the FSA that have not been lost to its successor. The FHA is continuing the fight to preserve the best features of the family farm in this country. Its program can become more dynamic and more resourceful only as public opinion becomes more enlightened to the need of a broader base of operations against rural poverty in the years ahead.

SAMUEL LISS

*Farmers Home Administration,
U. S. Dept. of Agriculture*



Community Builders Handbook. By Community Builders Council. Washington, D. C., Urban Land Institute, 1947. pp. 205, illus. \$12.00.

I suppose we can now agree that it must be so, for the Community Builders of America have put it in words and illustrations neatly bound together in handbook fashion. It is a good job. It satisfies a long felt need. For the first time there is available reliable data on standards for community development. These data, flowing as they do out of actual experience, are all the more valuable. It is the most complete compilation of development "know how" yet published. Planners should rejoice because much of the design material in the handbook originated with

them. It would be easy to criticize the omissions, of which there are several from a planner's viewpoint, but one has to admit that the authors of the handbook did a mighty fine job, even so.

Veteran and embryo developers in the realty field cannot afford to be without this handy reference book. In it they will find the "soup-to-nuts" material necessary to a comprehensive understanding of the more nearly right way to plan and build. Planners, too, can ill afford to be without this thesaurus of practical standards.

It should do much to improve future developments. Builders will be more inclined to accept techniques and standards recommended by their own fraternity than they would from starry-eyed planners. F.H.A. through its standards did much to raise the quality of development throughout the United States and was a great influence in stimulating better planning. The Community Builders Council has made an equally important contribution to the cause of planning in publishing the consolidated opinion of its members on what their experience seems to indicate is the most efficient and desirable manner in which to improve property. Time will tell, of course, but I am extremely optimistic about the good effect this handbook will have on planning in the future.

I do not hesitate to recommend this publication to anyone interested in obtaining a better understanding of development principles, standards and design.

CHAS B. BENNETT

*Director of Planning,
City of Los Angeles*



The Economic Rivalry Between St. Louis & Chicago, 1850-1880. By Wyatt W. Belcher. New York: Columbia University Press, 1947. pp. 217. \$3.00.

Dr. Belcher's appraisal of the economic rivalry between St. Louis and Chicago should increase our understanding of present urban patterns. Very few studies of urban size, growth and interrelationships exist. Little also is known about urban economic history. The gaps are serious for historians, city planners, federal and local officials, business groups and others.

The purpose of the study is to explain how Chicago wrested from St. Louis supremacy of the Midwest. Superior geographical position, transportation arteries and business leadership, Dr. Belcher shows, gave Chicago quite an edge. These advantages were magnified by the richer industrial and agricultural hinterland of the North and West which Chicago linked together—in comparison with the South's plantation system which St. Louis served. The Civil War and its aftermath further strengthened Chicago's dominant position.

Dr. Belcher relies heavily on newspaper accounts, commercial documents and trade statistics to reveal the varying attitudes, obstacles, economic position and prospects of the contending cities. Unfortunately, no maps or visual aids are presented though every chapter involves some descriptive geography involving transportation routes, areas of influence or settlement, etc. Unnecessary repetitions of simple ideas, especially of local attitudes, also tend to strain the reader's patience. Often too, the evidence seems good but as in many historical accounts the data are obviously selected. It is difficult to judge the representative quality or significance of the "attitudes" and case studies presented partly because no systematic breakdown of the principal economic activities and trends is attempted and no effort made to establish the relative importance of the factors governing city growth. For example, one could not tell from Dr. Belcher's analysis whether St. Louis might have thrived minus "energetic" business leadership if good railroads were built to supplement river transportation; or whether such leadership might have either followed or created better business opportunities and a more strategic economic location; or how St. Louis would have fared if its railroads were more efficiently financed and managed. These and other variables are carefully described but the nature of the interdependence between the "causes" is slighted.

Granted some of these problems are not easily solved or are beyond the study's purview. The weaknesses remain: they limit the virtues of an otherwise mature, useful and scholarly addition to the meagre literature on city development in the nineteenth century.

LLOYD RODWIN

Massachusetts Institute of Technology